TAX EXPENDITURES

Compendium of Background Material on Individual Provisions

COMMITTEE ON THE BUDGET UNITED STATES SENATE



DECEMBER 2012

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LETTER OF TRANSMITTAL

December 28, 2012

UNITED STATES SENATE COMMITTEE ON THE BUDGET WASHINGTON, DC

To the Members of the Committee on the Budget:

The Congressional Budget and Impoundment Control Act of 1974 (as amended) requires the Budget Committees to examine tax expenditures as they develop the Congressional Budget Resolution. Section 3(3) of the Budget Act of 1974 defines tax expenditures as those revenue losses attributable to provisions of the federal tax laws which allow a special exclusion, exemption, or deduction from gross income or provide a special credit, a preferential rate of tax, or a deferral of tax liability.

Tax expenditures are often enacted as permanent legislation and can be compared to direct spending on entitlement programs. There are over 200 separate tax expenditures in current law, costing the Treasury more than \$1 trillion each year. Given the nation's unsustainable long-term budget outlook, all tax expenditures and spending deserve increased scrutiny. Recent deficit and debt reduction proposals included tax reform options that eliminated or scaled back tax expenditures in order to simplify the tax code, lower tax rates, and raise needed revenue.

This print was prepared by the Congressional Research Service (CRS) and was coordinated by Jeannie Biniek, Alex Brosseau, Gwen Litvak and David Williams of the Senate Budget Committee staff. All tax code changes through December 21, 2012 are included.

The CRS has produced an extraordinarily useful document which incorporates not only a description of each provision and an estimate of its revenue cost, but also a discussion of its impact, a review of its underlying rationale, an assessment which addresses the arguments for and against the provision, and a set of bibliographic references. Nothing in this print should be interpreted as representing the views or recommendations of the Senate Budget Committee or any of its members.

Kent Conrad Chairman

LETTER OF SUBMITTAL

CONGRESSIONAL RESEARCH SERVICE THE LIBRARY OF CONGRESS Washington, D.C., December 21, 2012

Honorable Kent Conrad Chairman, Committee on the Budget U.S. Senate Washington, DC 20510

Dear Mr. Chairman:

I am pleased to submit a revision of the December 2010 Committee Print on Tax Expenditures.

As in earlier versions, each entry includes an estimate of each tax expenditure's revenue cost, its legal authorization, a description of the tax provision and its impact, the rationale at the time of adoption, an assessment, and bibliographic citations. The impact section includes quantitative data on the distribution of tax expenditures across income classes where such data are relevant and available. The rationale section contains some detail about the historical development of each provision. The assessment section summarizes major issues surrounding each tax expenditure.

The revision was written under the general direction of Jane Gravelle, Senior Specialist in Economic Policy, Thomas Hungerford, Specialist in Public Finance, and Donald Marples, Section Research Manager. Contributors of individual entries include Andrew Austin, James Bickley, Margo Crandall-Hollick, Jane Gravelle, Gary Guenther, Thomas Hungerford, Mark Keightley, Mindy Levit, Sean Lowry, Steven Maguire, Donald Marples, and Molly Sherlock of the Government and Finance Division; Alexandra Hegji, Janemarie Mulvey, Carol Rapaport, Christine Scott, and Scott Syzmendera of the Domestic Social Policy Division; Don Jansen of the Foreign Affairs, Defense and Trade Division; and Jennifer Teefy of the Knowledge Services Group. Jasmine Marcellus provided editorial review and prepared the document for publication.

Mary B. Mazanec *Director*

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INTRODUCTION

This compendium gathers basic information concerning approximately 250 federal tax provisions currently treated as tax expenditures. They include those listed in Tax Expenditure Budgets prepared for fiscal years 2011-2015 by the Joint Committee on Taxation, although certain separate items that are closely related and are within a major budget function may be combined. The Joint Committee on Taxation also lists about 30 additional tax expenditures with de minimis revenue losses (i.e., less that \$50 million over 5 years).

With respect to each tax expenditure, this compendium provides:

The estimated federal revenue loss associated with the provision for individual and corporate taxpayers, for fiscal years 2011-2015, as estimated by the Joint Committee on Taxation;

The legal authorization for the provision (e.g., Internal Revenue Code section, Treasury Department regulation, or Treasury ruling);

A description of the tax expenditure, including an example of its operation where this is useful;

A brief analysis of the impact of the provision, including information on the distribution of benefits where data are available:

A brief statement of the rationale for the adoption of the tax expenditure where it is known, including relevant legislative history;

An assessment, which addresses the arguments for and against the provision; and

Selected bibliography.

The information presented for each tax expenditure is not intended to be exhaustive or definitive. Rather, it is intended to provide an introductory understanding of the nature, effect, and background of each provision. Useful

(1)

¹ U.S. Congress, Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2011-2015*, January 17, 2012 (JCS-1-12).

starting points for further research are listed in the selected bibliography following each provision.

Defining Tax Expenditures

Tax expenditures are revenue losses resulting from tax provisions that grant special tax relief designed to encourage certain kinds of behavior by taxpayers or to aid taxpayers in special circumstances. These provisions may, in effect, be viewed as spending programs channeled through the tax system. They are, in fact, classified in the same functional categories as the U.S. budget.

Section 3(3) of the Congressional Budget and Impoundment Control Act of 1974 specifically defines tax expenditures as:

... those revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability;

In the legislative history of the Congressional Budget Act, provisions classified as tax expenditures are contrasted with those provisions which are part of the "normal structure" of the individual and corporate income tax necessary to collect government revenues.

The listing of a provision as a tax expenditure in no way implies any judgment about its desirability or effectiveness relative to other tax or non-tax provisions that provide benefits to specific classes of individuals and corporations. Rather, the listing of tax expenditures, taken in conjunction with the listing of direct spending programs, is intended to allow Congress to scrutinize all federal programs relating to the same goals — both non-tax and tax — when developing its annual budget. Only when tax expenditures are considered will congressional budget decisions take into account the full spectrum of federal programs.

Because any qualified taxpayer may reduce tax liability through use of a tax expenditure, such provisions are comparable to entitlement programs under which benefits are paid to all eligible persons. Since tax expenditures are generally enacted as permanent legislation, it is important that, as entitlement programs, they be given thorough periodic consideration to see whether they are efficiently meeting the national needs and goals for which they were established.

Tax expenditure budgets which list the estimated annual revenue losses associated with each tax expenditure first were required to be published in 1975 as part of the Administration's budget for fiscal year 1976, and have been required to be published by the Budget Committees since 1976. The tax expenditure concept is still being refined, and therefore the classification of certain provisions as tax expenditures continues to be discussed. Nevertheless, there has been widespread agreement for the treatment as tax expenditures of most of the provisions included in this compendium.²

As defined in the Congressional Budget Act, the concept of tax expenditure refers to the corporate and individual income taxes. Other parts of the Internal Revenue Code — excise taxes, employment taxes, estate and gift taxes — also have exceptions, exclusions, refunds and credits (such as a gasoline tax exemption for non-highway uses) which are not included here because they are not parts of the income tax.

Administration Fiscal Year 2013 Expenditure Budget

There are several differences between the tax expenditures shown in this publication and the tax expenditure budget found in the Administration's FY2013 budget document. In some cases tax expenditures are combined in one list, but listed separately in the other.

Major Types of Tax Expenditures

Tax expenditures may take any of the following forms:

- (1) exclusions, exemptions, and deductions, which reduce taxable income:
- (2) preferential tax rates, which apply lower rates to part or all of a taxpayer's income;

² For a discussion of the conceptual problems involved in defining tax expenditures and some of the differences between the Administration's and Joint Committee on Taxation's approaches, see *The Budget of the United States Government, Fiscal Year 2009, Analytical Perspectives,* "Tax Expenditures," pp. 285-325. See also Linda Sugin, "What Is Happening to the Tax Expenditure Budget?" *Tax Notes,* August 16, 2004, pp. 763-766; Thomas L. Hungerford, *Tax Expenditures: Trends and Critiques,* Library of Congress, Congressional Research Service Report RL33641, September 13, 2006; and Thomas L. Hungerford, "Tax Expenditures: Good, Bad, or Ugly?" *Tax Notes,* October 23, 2006, pp. 325-334.

- (3) credits, which are subtracted from taxes as ordinarily computed; and
- (4) deferrals of tax, which result from delayed recognition of income or from allowing deductions in the current year that are properly attributable to a future year.

The amount of tax relief per dollar of each exclusion, exemption, and deduction increases with the taxpayer's tax rate. A tax credit is subtracted directly from the tax liability that would otherwise be due; thus the amount of tax reduction is the amount of the credit — which does not depend on the marginal tax rate. (See Appendix A for further explanation.)

Largest Tax Expenditures

While JCT lists and estimates about 250 items in their tax expenditure publication, relatively few account for most of the aggregate cost. The following two tables list the top individual and corporate tax expenditures. The first table lists the 10 largest tax expenditures (in terms of revenue lost) directed to individuals. In several instances, one item in the table includes two or more items listed by JCT. For example, JCT includes an item for the refundable portion of the earned income tax credit and another for the nonrefundable portion. This compendium combines these two items into one. The 10 items listed here account for 16 separate items in JCT's list. Overall, these 10 items account for almost 70 percent of the total dollars of tax expenditures directed to individuals.

10 Largest Tax Expenditures, 2011: Individuals

[In billions of dollars]

Tax Expenditure	Amount
Exclusion of employer contributions for health care	109.3
Exclusion of contributions and earnings to retirement plans	105.3
Reduced rates of tax on dividends and long-term capital gains	90.5
Deduction for mortgage interest	77.6
Earned income tax credit	59.5
Exclusion for Medicare benefits	57.6
Child tax credit	56.4
Deduction of state and local taxes	42.4
Exclusion of capital gains at death	38.0
Deduction for charitable contributions	36.6

The next table reports the 10 largest tax expenditures (in terms of revenue lost) directed to corporations. Again, some of the JCT tax expenditure items have been combined into a single item. Overall, these 10 tax expenditure items account for about 75 percent of the total dollars of tax expenditures directed to corporations.

10 Largest Tax Expenditures, 2011: Corporations [In billions of dollars]

Tax Expenditure	Amount
Depreciation of equipment in excess of the alternative depreciation system	52.3
Deferral for active income of controlled foreign corporations	15.3
Deduction of income attributable to domestic production activities	8.9
Exclusion of interest on public purpose state and local government bonds	8.5
Inclusion of income arising from business indebtedness discharged by the reacquisition of a debt instrument	6.9
Deferral of active financing income	6.2
Inventory property sales source rule	6.0
Credit for increasing research activities	5.8
Credit for low income housing	5.1
Inventory methods and valuation	4.2

Order of Presentation

The tax expenditures are presented in an order which generally parallels the budget functional categories used in the congressional budget, i.e., tax expenditures related to "national defense" are listed first, and those related to "international affairs" are listed next. In a few instances, two or three closely related tax expenditures derived from the same Internal Revenue Code provision have been combined in a single summary to avoid repetitive references even though the tax expenditures are related to different functional categories. This parallel format is consistent with the requirement of section 301(d)(6) of the Budget Act, which requires the tax expenditure budgets published by the Budget Committees as parts of their April 15 reports to present the estimated levels of tax expenditures "by major functional categories."

Impact (Including Distribution)

The impact section includes information on the direct effect of the provisions and, where available, the distributional effect across individuals.

Unless otherwise specified, distributional tables showing the share of the tax expenditure received by income class are calculated from data in the Joint Committee on Taxation's committee print on tax expenditures for 2011-2015. This distribution uses an expanded income concept that is composed of adjusted gross income (AGI), plus (1) tax-exempt interest, (2) employer contributions for health plans and life insurance, (3) employer share of FICA tax, (4) workers' compensation, (5) nontaxable Social Security benefits, (6) insurance value of Medicare benefits, (7) alternative minimum tax preferences, and (8) excluded income of U.S. citizens abroad.

These estimates were made for 12 tax expenditures. For other tax expenditures, a distributional estimate or information on distributional impact is provided, when such information could be obtained.

The following table shows the estimated distribution of returns by income class, for comparison with those tax expenditure distributions:

Distribution by Income Class of Tax Returns at 2010 Income Levels

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	13.4
\$10 to \$20	11.1
\$20 to \$30	11.8
\$30 to \$40	9.8
\$40 to \$50	8.6
\$50 to \$75	16.4
\$75 to \$100	10.5
\$100 to \$200	14.5
\$200 and over	3.8

The Tax Policy Center has simulated the effect across the income distribution of eliminating tax expenditures:³ their results are reproduced in the table below. The table shows the percentage decrease in after-tax income

³ Leonard E. Burman, Christopher Geissler, and Eric J. Toder, "How Big Are Total Individual Income Tax Expenditures, and Who Benefits from Them?" *American Economic Review, papers and proceedings*, v. 98, no. 2, May 2008, pp. 79-83.

from eliminating tax expenditures by income quintile. Overall, tax expenditures tend to benefit higher income taxpayers—they have an "upside down" distributional pattern. The distribution pattern, however, differs by the type of tax expenditure. Exclusions, preferential tax rates on capital gains and dividends, and itemized deductions benefit higher-income taxpayers, while refundable tax credits benefit lower-income taxpayers.

Tax Expenditures as a Percentage of After-Tax Income, 2007

Туре	Lowest Quintile	Middle Quintile	Highest Quintile	Top 1 Percent
Exclusions	0.5	3.8	4.7	2.9
Above-line deductions	0.0	0.1	0.1	0.1
Capital gains, dividends	0.0	0.0	2.1	5.9
Itemized deductions	0.0	0.4	2.9	3.2
Nonrefund credits	0.1	0.3	0.1	0.0
Refund credits	5.5	2.2	0.3	0.0
All	6.5	6.8	11.4	13.5

Source: Burman, Geissler, and Toder.

Many tax expenditures are corporate and thus do not directly affect the taxes of individuals. Most analyses of capital income taxation suggest that such taxes are likely to be borne by capital given reasonable behavioral assumptions. Capital income is heavily concentrated in the upper-income levels. For example, the Congressional Budget Office reported in 2005 that the top 1 percent of taxpayers accounted for 59 percent of corporate income tax liability, the top 5 percent accounted for 75 percent, the top 10 percent accounted for 82 percent, and the top 20 percent accounted for 88 percent. The distribution of corporate income tax liabilities across the first four quintiles was less than 1 percent, 1 percent, 3 percent, and 6 percent. Corporate tax expenditures would, therefore, tend to benefit higher-income individuals.

⁴ See Jane G. Gravelle and Thomas L. Hungerford, *Corporate Tax Reform: Issues for Congress*, Library of Congress, Congressional Research Service Report RL34229, July 24, 2008.

⁵ U.S. Congress, Congressional Budget Office, *Effective Federal Tax Rates for 1979-2005*, December 2007, Table 1B.

Rationale

Each tax expenditure item contains a brief statement of the rationale for the adoption of the expenditure, where it is known. They are the principal rationales publicly given at the time the provisions were enacted. The rationale also chronicles subsequent major changes in the provisions and the reasons for the changes.

Assessment

The assessment section summarizes the arguments for and against the tax expenditures and the issues they raise. These issues include effects on economic efficiency, on fairness and equity, and on simplicity and tax administration. Further information can be found in the bibliographic citations.

Estimating Tax Expenditures

The revenue losses for all the listed tax expenditures are those estimated by the Joint Committee on Taxation.

In calculating the revenue loss from each tax expenditure, it is assumed that only the provision in question is deleted and that all other aspects of the tax system remain the same. In using the tax expenditure estimates, several points should be noted.

First, in some cases, if two or more items were simultaneously eliminated, the combination of changes would probably produce a lesser or greater revenue effect than the sum of the amounts shown for the individual items. Thus, the arithmetical sum of all tax expenditures (reported below) may be different from the actual revenue consequences of eliminating all tax expenditures.⁶

Second, the amounts shown for the various tax expenditure items do not take into account any effects that the removal of one or more of the items might have on investment and consumption patterns or on any other aspects of individual taxpayer behavior, general economic activity, or decisions regarding other federal budget outlays or receipts.

⁶ A recent study estimates that the sum of revenues lost under the separate tax expenditures is about 8 percent less than the revenue loss when the tax expenditures are taken as a group. See Burman, Geissler, and Toder.

Finally, the revenue effect of new tax expenditure items added to the tax law may not be fully felt for several years. As a result, the eventual annual cost of some provisions is not fully reflected until some time after enactment. Similarly, if items now in the law were eliminated, it is unlikely that the full revenue effects would be immediately realized.

These tax expenditure estimating considerations are, in many ways, similar to estimating considerations involving entitlement programs. First, like tax expenditures, annual budget estimates for each transfer and incomesecurity program are computed separately. However, if one program, such as veteran's pensions, were either terminated or increased, this would affect the level of payments under other programs, such as welfare payments. Second, like tax expenditure estimates, the elimination or curtailment of a spending program, such as military spending or unemployment benefits, would have substantial effects on consumption patterns and economic activity that would directly affect the levels of other spending programs. Finally, like tax expenditures, the budgetary effect of terminating certain entitlement programs would not be fully reflected until several years later because the termination of benefits is usually only for new recipients, with persons already receiving benefits continued under "grandfather" provisions.

The table below shows tax expenditure estimates by year for individuals and corporations. All revenue loss estimates are based upon the tax law enacted through January 10, 2011. As a result, they do not reflect the extension of dozens of expired or expiring provisions. For a provision that was assumed to expire, its extension would typically add to its projected cost. On the other hand, legislation that continued lower individual income tax rates after 2012 would have the effect of lowering the cost of some tax expenditures in those years.

Sum of Tax Expenditure Estimates by Type of Taxpayer, Fiscal Years 2011-2015

[In billions of dollars]

_				
_	Fiscal year	Individuals	Corporations	Total
-	2011	1,026.6	158.8	1,185.4
	2012	1,011.0	127.2	1,138.2
	2013	1,091.8	92.3	1,184.1
	2014	1,142.6	101.2	1,243.8
	2015	1,255.5	110.8	1,366.3

Note: These totals are the mathematical sum of the estimated fiscal year effect of each of the tax expenditure items included in this publication as appearing in the Joint Committee on Taxation's January 2012 list.

Selected Bibliography

Altshuler, Rosanne and Robert D. Dietz. *Tax Expenditure Estimation and Reporting: A Critical Review*, NBER working paper 14263, August 2008.

— . "Reconsidering Tax Expenditure Estimation," *National Tax Journal*, v. 64, no. 2 (part 2), June 2011, pp. 459-490.

Bartlett, Bruce. "The Flawed Concept of Tax Expenditures." National Center for Policy Analysis (http://www.ncpa.org), February 13, 2002.

Bosworth, Barry P. *Tax Incentives and Economic Growth*. Washington, DC: The Brookings Institution, 1984.

Brannon, Gerard M. "Tax Expenditures and Income Distribution: A Theoretical Analysis of the Upside-Down Subsidy Argument," *The Economics of Taxation*, Henry J. Aaron and Michael J. Boskin, eds. Washington, DC: The Brookings Institution, 1980, pp. 87-98.

Brixi, Hana Polackova, Christian M.A. Valenduc and Zhicheng Li Swift. Shedding Light on Government Spending Through the Tax System: Lessons from Developed and Transition Economies. Washington, DC: World Bank, 2004.

Browning, Jacqueline, M. "Estimating the Welfare Cost of Tax Preferences," *Public Finance Quarterly*, v. 7, no. 2. April 1979, pp. 199-219.

Buckley, John L. "Tax Expenditure Reform: Some Common Misconceptions," Tax Notes, v. 132, n. 3, July 18, 2011, pp. 255-270.

Burman, Leonard E. "Is the Tax Expenditure Concept Still Relevant?" *National Tax Journal*, v. 56, September 2003, pp. 613-628.

Burman, Leonard, Christopher Geissler, and Eric J. Toder. "How Big Are Total Individual Income Tax Expenditures, and Who Benefits from Them?" *American Economic Review, papers and proceedings*, v. 98, no. 2, May 2008, pp. 79-83.

The Century Foundation. *Bad Breaks All Around*. Report of the Working Group on Tax Expenditures. New York: The Century Foundation Press, 2002.

Craig, Jon and William Allan. "Fiscal Transparency, Tax Expenditures and Budget Processes: An International Perspective," *Proceedings of the 94th Annual Conference 2001*, Washington, D.C.: National Tax Association, 2002, 258-264.

Citizens for Tax Justice. "Judging Tax Expenditures: Spending Programs Buried Within the Nation's Tax code Need to be Reviewed," November 13, 2009.

Edwards, Kimberly K. "Reporting for Tax Expenditure and Tax Abatement," *Government Finance Review*, v. 4. August 1988, pp. 13-17.

Freeman, Roger A. *Tax Loopholes: The Legend and the Reality*. Washington, DC: American Enterprise Institute for Public Policy Research, 1973.

Fox, John O. "The Untold Story: Congress's Own Calculation of Its Revenue Losses from Special Provisions of the Tax Laws." Chapter 5 in *If Americans Really Understood the Income Tax*. Boulder, Colorado: Westview Press, 2001.

Gravelle, Jane G. "Tax Expenditures." *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005, pp. 379-380.

Gravelle, Jane G. and Thomas L. Hungerford. *Corporate Tax Reform: Issues for Congress*, Library of Congress. Congressional Research Service Report RL34229, December 16, 2011.

Hildred, William M., and James V. Pinto. "Estimates of Passive Tax Expenditures, 1984," *Journal of Economic Issues*, v. 23. March 1989, pp. 93-106.

Howard, Christopher. *The Hidden Welfare State: Tax Expenditures and Social Policy in the United States.* Princeton, NJ: Princeton Univ. Press, 1997.

Hungerford, Thomas L. "Tax Expenditures: Good, Bad, or Ugly?" *Tax Notes*, October 23, 2006, pp. 325-334.

- . Tax Expenditures: Trends and Critiques. Library of Congress, Congressional Research Service Report RL33641, Washington, DC: February 4, 2008.
- . "Tax Expenditures and Long-term Federal Budget Pressures," *Tax Notes*, December 22, 2008, pp. 1409-1417.

— . Tax Expenditures and the Federal Budget. Library of Congress, Congressional Research Service Report RL34622, Washington, DC: June 1, 2011.

King, Ronald F. "Tax Expenditures and Systematic Public Policy: An Essay on the Political Economy of the Federal Revenue Code," *Public Budgeting and Finance*, v. 4, Spring 1984, pp. 14-31.

Kleinbard, Edward D. "Tax Expenditure Framework Legislation," *National Tax Journal*, v. 63, no. 2, June 2010, pp. 353-382.

Klimschot, JoAnn. *The Untouchables: A Common Cause Study of the Federal Tax Expenditure Budget*. Washington, DC: Common Cause, 1981.

Ladd, Helen. *The Tax Expenditure Concept after 25 Years*. Presidential Address to the National Tax Association. *Proceedings of the 86th Annual Conference 1994*, Columbus, Ohio: National Tax Association, 1995, 50-57.

McLure, Charles E., Jr. *Must Corporate Income Be Taxed Twice?* Washington, DC: The Brookings Institution, 1979.

Mikesell, John L. "The Tax Expenditure Concept at the State Level: Conflict Between Fiscal Control and Sound Tax Policy," *Proceedings of the 94th Annual Conference 2001*, Washington, DC: National Tax Association, 2002, 265-272.

Neil, Bruce. "Tax Expenditures and Government Policy." Kingston, Ontario: John Deutsche Institute for the Study of Economic Policy, 1989.

Noto, Nonna A. "Tax Expenditures: The Link Between Economic Intent and the Distribution of Benefits Among High, Middle, and Low Income Groups." Library of Congress, Congressional Research Service Multilith 80-99E. Washington, DC: May 22, 1980.

Pechman, Joseph A., ed. *Comprehensive Income Taxation*. Washington, DC: The Brookings Institution, 1977.

- . Federal Tax Policy: Revised Edition. Washington, DC: The Brookings Institution, 1980.
- . What Should Be Taxed: Income or Expenditures? Washington, DC: The Brookings Institution, 1980.
- . Who Paid the Taxes, 1966-85, Washington, DC: The Brookings Institution, 1985.

Schick, Allen. "Controlling Nonconventional Expenditure: Tax Expenditures and Loans," *Public Budgeting and Finance*, v. 6. Spring 1986, pp. 3-19.

Schroeher, Kathy. Gimme Shelters: A Common Cause Study of the Review of Tax Expenditures by the Congressional Tax Committees. Washington, DC: Common Cause, 1978.

Simon, Karla, "The Budget Process and the Tax Law," *Tax Notes*, v. 40. August 8, 1988, pp. 627-637.

Steuerle, Eugene, and Michael Hartzmark. "Individual Income Taxation, 1947-79," *National Tax Journal*, v. 34, no. 2, June 1981, pp. 145-166.

Sugin, Linda. "What Is Happening to the Tax Expenditure Budget?" Tax Notes, August 16, 2004.

Sunley, Emil M. "The Choice Between Deductions and Credits," *National Tax Journal*, v. 30, no. 3, September 1977, pp. 243-247.

Surrey, Stanley S. *Pathways to Tax Reform*. Cambridge, MA: Harvard University Press, p. 3.

U.S. Government Accountability Office. *Tax Expenditures Represent a Substantial Federal Commitment and Need to be Reexamined*, GAO-05-690, Washington. DC: 2005.

National Defense

EXCLUSION OF BENEFITS AND ALLOWANCES TO ARMED FORCES PERSONNEL

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	4.1	-	4.1
2012	4.6	-	4.6
2013	5.1	-	5.1
2014	5.4	-	5.4
2015	5.6	-	5.6

Authorization

Sections 112 and 134, and court decisions [see *Jones v. United States*, 60 Ct. Cl. 552 (1925)].

Description

Military personnel are provided with a variety of in-kind benefits (or cash payments given in lieu of such benefits) that are not taxed. These benefits include medical and dental benefits, group term life insurance, professional education and dependent education, moving and storage, premiums for survivor and retirement protection plans, subsistence allowances, uniform allowances, housing allowances, overseas cost-of-living allowances, evacuation allowances, family separation allowances, travel for consecutive overseas tours, emergency assistance, family counseling and defense counsel, burial and death services, travel of dependents to a burial site, and a number of less significant items.

Other benefits include certain combat-zone compensation and combatrelated benefits. In addition, any member of the armed forces who dies while in active service in a combat zone or as a result of wounds, disease, or injury incurred while in service is excused from all tax liability. Any unpaid tax due at the date of the member's death (including interest, additions to the tax, and additional amounts) is abated. If collected, such amounts are credited or refunded as an overpayment. (Medical benefits for dependents are discussed subsequently under the Health function.) Families of members of the armed forces receive a \$100,000 death gratuity payment for deceased members of the armed forces. The full amount of the death gratuity payment is tax-exempt.

The personal use of an automobile is not excludable as a qualified military benefit.

The rule that the exclusion for qualified scholarships and qualified tuition reductions does not apply to amounts received that represent compensation for services no longer applies in the case of amounts received under the Armed Forces Health Professions Scholarship and Financial Assistance Program or the F. Edward Hebert Armed Forces Health Professions Scholarship and Financial Assistance Program. Recipients of these scholarships are obligated to serve in the military at an armed forces medical facility.

Impact

Many military benefits qualify for tax exclusion and, thus, the value of the benefit is not included in gross income. Since these exclusions are not counted in income, the tax savings are a percentage of the amount excluded, dependent upon the marginal tax bracket of the recipient. One study, estimated that the tax advantage of this treatment is, on average, equivalent to \$2,600 in after tax income for each enlisted service member and \$5,310 for each officer.

The value of the exclusion rises as income rises and, thus, reduces the progressivity of the income tax system. For example, the value of each \$100 excluded from income is \$10 for an individual in the 10-percent tax bracket (the lowest income tax bracket) and \$35 for an individual in the 35-percent tax bracket (the highest income tax bracket). The effect of the exclusion, thus, counteracts the progressive rate structure of the income tax system, resulting in a less progressive overall system.

The exclusion of qualified medical scholarships will primarily benefit students, therefore most beneficiaries are likely to have low tax rates. As noted earlier, the tax benefit of an exclusion varies according to the marginal tax rate of the individual.

Rationale

In 1925, the United States Court of Claims in *Jones v. United States*, 60 Ct. Cl. 552 (1925), drew a distinction between the pay and allowances provided military personnel. The court found that housing and housing allowances were reimbursements similar to other non-taxable expenses authorized for the executive and legislative branches.

Prior to this court decision, the Treasury Department had held that the rental value of quarters, the value of subsistence, and monetary commutations were to be included in taxable income. This view was supported by an earlier income tax law, the Tax Act of August 27, 1894, (later ruled unconstitutional by the Courts) which provided a two-percent tax "on all salaries of officers, or payments to persons in the civil, military, naval, or other employment of the United States."

The principle of exemption of armed forces benefits and allowances evolved from the precedent set by *Jones v. United States*, through subsequent statutes, regulations, or long-standing administrative practices.

The Tax Reform Act of 1986 (P.L. 99-514) consolidated these rules so that taxpayers and the Internal Revenue Service could clearly understand and administer the tax law consistent with fringe benefit treatment enacted as part of the Deficit Reduction Act of 1984 (P.L. 98-369). Provisions added by the Military Family Tax Relief Act of 2004 (P.L. 108-121) in November 2003 clarified uncertainty concerning the U.S. Treasury Department's authority to add dependent care assistance programs to the list of qualified military benefits.

For some benefits, the rationale was a specific desire to reduce tax burdens of military personnel during wartime (as in the use of combat pay provisions); other allowances were apparently based on the belief that certain types of benefits were not strictly compensatory, but rather intrinsic elements in the military structure.

The Economic Growth and Tax Reconciliation Relief Act of 2001 (P.L. 107-16) simplified the definition of earned income by excluding nontaxable employee compensation, which included combat zone pay, from the definition of earned income. The amount of earned income that armed forces members reported for tax purposes was reduced and caused a net loss in tax benefits for some low-income members of the armed forces. The Working Families Tax Relief Act of 2004 (P.L. 108-311) provided that combat pay

that was otherwise excluded from gross income could be treated as earned income for the purpose of calculating the earned income tax credit and the child tax credit, through 2005, a provision that was extended through 2006 by the Gulf Opportunity Zone Act of 2005 (P.L. 109-135), 2007 by the Tax Relief and Health Care Act of 2006 (P.L. 109-432), and made permanent by the Heroes Earnings Assistance and Relief Tax Act of 2008 (P.L. 110-245).

Assessment

Some military benefits are akin to the "for the convenience of the employer" benefits provided by private enterprise, such as the allowances for housing, subsistence, payment for moving and storage expenses, overseas cost-of-living allowances, and uniforms. Other benefits are equivalent to employer-provided fringe benefits such as medical and dental benefits, education assistance, group term life insurance, and disability and retirement benefits.

Some see the provision of compensation in a tax-exempt form as an unfair substitute for additional taxable compensation. The tax benefits that flow from an exclusion do provide the greatest benefits to high- rather than low-income military personnel. Administrative difficulties and complications could be encountered in taxing some military benefits and allowances that currently have exempt status; for example, it could be difficult to value meals and lodging when the option to receive cash is not available. By eliminating exclusions and adjusting military pay scales accordingly, a result might be to simplify decision-making about military pay levels and make "actual" salary more apparent and satisfying to armed forces personnel. If military pay scales were to be adjusted upward, it could increase the retirement income of military personnel. However, elimination of the tax exclusions could also lead service members to think their benefits were being cut, or provide an excuse in the "simplification" process to actually cut benefits, affecting recruiting and retention negatively.

Selected Bibliography

Burrelli, David F. And Jennifer R. Corwell, *Military Death Benefits: Status and Proposals*, Library of Congress, Congressional Research Service Report RL32769 (2008).

Garrison, Larry R. "Tax Planning for Armed Forces Personnel (Part I)," *The Tax Advisor*, v. 30, December 1999, pp. 838-843.

— , "Tax Planning for Armed Forces Personnel (Part II)," *The Tax Advisor*, v. 31, January 2000, pp. 44-47.

Grefer, James E., Comparing Military and Civilian Compensation Packages, Center for Naval Analysis, March 2008.

Kapp, Lawrence A. and Charles A. Henning, *Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom: Questions and Answers About U.S. Military Personnel, Compensation, and Force Structure*, Library of Congress, Congressional Research Service Report RL31334 (2006).

Kusiak, Patrick J. "Income Tax Exclusion for Military Personnel During War: Examining the Historical Development, Discerning Underlying Principles, and Identifying Areas for Change," *Federal Bar News and Journal*, v. 39, February 1992, pp. 146-151.

Ogloblin, Peter K. Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds. Washington, DC: Department of Defense, Office of the Secretary of Defense, September 1996, pp. 137-149.

Poulson, Linda L. and Ananth Seetharaman. "Taxes and the Armed Forces," *The CPA Journal*, April 1996, pp. 22-26.

Rousseau, Richard W. "Tax Benefits for Military Personnel in a Combat Zone or Qualified Hazardous Duty Area," *The Army Lawyer*, v. 1999, December 1999, pp. 1-29.

Steurle, Gene. "Tax Relief and Combat Pay," *Tax Notes*, v. 50, January 28, 1991, pp. 405-406.

- U.S. Congress, Congressional Budget Office. *Evaluating Military Compensation*. Washington, DC, April 2010.
- U.S. Congress, Congressional Budget Office. *Military Family Housing in the United States*. Washington, DC, September 1993, p. 67.
- U.S. Congress, House Committee on Ways and Means. Tax Benefits for Individuals Performing Services in Certain Hazardous Duty Areas; Report to Accompany H.R. 2778 including Cost Estimate of the Congressional Budget Office, 104th Congress, 2nd Session. Washington, DC: U.S. Government Printing Office, 1996, p. 14.
- , Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514. Washington, DC: U.S. Government Printing Office, 1987, pp. 828-830.
- , Joint Committee on Taxation. *Technical Explanation of H.R. 3365, The Military Family Tax Relief Act of 2003," as Passed by the House of Representatives and the Senate.* Washington, DC: U.S. Government Printing Office, 2003, pp. 1-19.
- , Joint Committee on Taxation. *Technical Explanation of H.R. 6081, The "Heroes Earnings Assistance and Relief Act of 2008," as Scheduled for Consideration by the House of Representatives on May 20, 2008.* Washington, DC: U.S. Government Printing Office, 2008.
- U.S. Dept. of Defense. Report and Staff Analysis of the Seventh Quadrennial Review of Military Compensation. Washington, DC: 7 volumes, August 21, 1992.

- U.S. Dept. of the Treasury, Internal Revenue Service. *Publication 3: Armed Forces' Tax Guide*. Washington, DC: U.S. Government Printing Office, 2008.
- U.S. Dept. of the Treasury, Office of the Secretary. Tax Reform for Fairness, Simplicity, and Economic Growth; the Treasury Department Report to the President. Washington, DC: November 1984, pp. 47-48.
- U.S. General Accounting Office, "Military Compensation: Active Duty Compensation and Its Tax Treatment," *GAO Report GAO-04-721R* (Washington, DC: April 2004).
- , "Military Personnel: DOD Has Not Implemented the High Deployment Allowance that Could Compensate Service members Deployed Frequently for Short Periods," *GAO Report GAO-04-805* (Washington, DC: June 2004).
- , "Military Personnel: Bankruptcy Filings Among Active Duty Service members," *GAO Report GAO-04-465R* (Washington, DC: February 2004).
- , "Military Compensation: Active Duty Compensation and Its Tax Treatment," *GAO Report GAO-04-721R* (Washington, DC: April 2004).
- U.S. Government Accountability Office, "Military Personnel: DOD Needs to Improve the Transparency and Reassess the Reasonableness, Appropriateness. Affordability, and Sustainability of Its Military Compensation System," *GAO Report GAO-05-798*, (Washington, D.C.: July 2005).

National Defense

EXCLUSION OF MILITARY DISABILITY BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	-	0.2
2012	0.2	-	0.2
2013	0.2	-	0.2
2014	0.2	-	0.2
2015	0.2	-	0.2

Authorization

Section 104(a)(4) or (5) and 104(b).

Description

Members of the armed forces on or before September 24, 1975, are eligible for tax exclusion of disability pay. The payment from the Department of Defense is based either on the percentage-of-disability or years-of-service methods.

In the case of the percentage-of-disability method, the pension is the percentage of disability multiplied by the terminal monthly basic pay. These disability pensions are excluded from gross income.

In the years-of-service method, the terminal monthly basic pay is multiplied by the number of service years times 2.5. Only that portion that would have been paid under the percentage-of-disability method is excluded from gross income.

Members of the United States armed forces joining after September 24, 1975, and who retire on disability may exclude from gross income Department of Defense disability payments equivalent to disability payments they could have received from the Department of Veterans Affairs. Otherwise, Department of Defense disability pensions may be excluded only if the disability is directly attributable to a combat-related injury.

Under the Victims of Terrorism Tax Relief Act of 2001 an exclusion from gross income for disability income is extended to any individual (civilian or military) when attributable to a terrorist or military action regardless of where the activity occurs (inside or outside the United States).

Impact

Disability pension payments that are exempt from tax provide more net income than taxable pension benefits at the same level. The tax benefit of this provision increases as the marginal tax rate increases, and is greater for higher-income individuals.

Rationale

Typically, acts which provided for disability pensions for American veterans also provided that these payments would be excluded from individual income tax. In 1942, the provision was broadened to include disability pensions furnished by other countries (many Americans had joined the Canadian armed forces). It was argued that disability payments, whether provided by the United States or by Canadian governments, were made for essentially the same reasons and that the veteran's disability benefits were similar to compensation for injuries and sickness, which at that time was already excludable from income under Internal Revenue Code provisions.

In 1976, the exclusion was repealed, except in certain instances. Congress sought to eliminate abuses by armed forces personnel who were classified as disabled shortly before becoming eligible for retirement in order to obtain tax-exempt treatment for their pension benefits. After retiring from military service, some individuals would earn income from other employment while receiving tax-free military disability benefits. Since present armed forces personnel may have joined or continued their service because of the expectation of tax-exempt disability benefits, Congress deemed it equitable to limit changes in the tax treatment of disability payments to those joining after September 24, 1975.

Assessment

The exclusion of disability benefits paid by the federal government alters the distribution of net payments to favor higher income individuals. If individuals had no other outside income, distribution could be altered either by changing the structure of disability benefits or by changing the tax treatment.

The exclusion causes the true cost of providing for military personnel to be understated in the budget.

Selected Bibliography

Boris I. Bittker, "Tax Reform and Disability Pensions — the Equal Treatment of Equals," *Taxes*, v. 55., no. 6 (June 1977), pp. 363-367.

Danielle Cullinane, Compensation for Work-Related Injury and Illness (Santa Monica, CA: RAND, 1992), RAND Publication Series N-3343-FMP.

Peter K Ogloblin, Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds (Washington, DC: U.S. Government Printing Office, September 1996), pp. 545-556.

Linda L Poulson and Ananth Seetharaman, "Taxes and the Armed Forces," *The CPA Journal*, vol. 66, no. 4 (April 1996), pp. 22-26.

- U.S. Congress, Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1976 (H.R. 10612, 94th Congress: Public Law 94-455), joint committee print, 94th Congress, 2nd sess., December 29, 1976, JCS-33-76 (Washington, DC: GPO, 1976), pp. 129-131.
- U.S. Department. of the Treasury, Office of the Secretary, *Tax Reform for Fairness, Simplicity, and Economic Growth; the Treasury Department Report to the President,* November 1984, pp. 51-57.
- , Internal Revenue Service, *Taxable and Nontaxable Income*, Publication 525, January 1, 2012, pp. 15, 17.
- U.S. General Accounting Office, Disability Benefits: Selected Data on Military and VA Recipients; Report to the Committee on Veterans' Affairs, House of Representatives. GAO/HRD-92-106, August 13, 1992.
- , Military and Veterans' Benefits: Observations on the Concurrent Receipt of Military Retirement and VA Disability Compensation, GAO-03-575T, March 27, 2003.
- , VA Disability Compensation: Comparison of VA Benefits with those of Workers' Compensation Programs, GAO/HEHS-97-5, February 14, 1997.
- , VA Disability Compensation: Disability Ratings May Not Reflect Veterans' Economic Losses, GAO/HEHS-97-9, January 7, 1997.

National Defense

DEDUCTION FOR OVERNIGHT-TRAVEL EXPENSES OF NATIONAL GUARD AND RESERVE MEMBERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1		0.1
2012	0.1	-	0.1
2013	0.1	-	0.1
2014	0.1	-	0.1
2015	0.1	-	0.1

Authorization

Sections 162(p) and 62(a)(2)(E).

Description

An above-the-line deduction is available for un-reimbursed overnight travel, meals, and lodging expenses of National Guard and Reserve members. In order to qualify for the provision, he or she must have traveled more than 100 miles away from home and stayed overnight as part of an activity while on official duty. The deduction applies to all amounts paid or incurred in tax years beginning after December 31, 2002. No deduction is generally permitted for commuting expenses to and from drill meetings and the amount of expenses that may be deducted may not exceed the general federal Government per diem rate applicable to that locale.

This deduction is available to taxpayers regardless of whether they claim the standard deduction or itemize deductions when filing their income tax return. The deduction is not restricted by the overall limitation on itemized deductions.

Impact

The value of the benefit (or cash payment made in lieu of the benefit) is not included in gross income. Since these deductions are not counted in income, the tax savings are a percentage of the amount excluded, dependent upon the marginal tax bracket of the recipient.

An individual in the 10-percent tax bracket (federal tax law's lowest tax bracket) would not pay taxes equal to \$10 for each \$100 excluded. Likewise, an individual in the 35-percent tax bracket (federal law's highest tax bracket) would not pay taxes of \$35 for each \$100 excluded. Hence, the same exclusion can be worth different amounts to different military personnel, depending on their marginal tax bracket. By providing military compensation in a form not subject to tax, the benefits have greater value for members of the armed services with high income than for those with low income.

One of the benefits of an "above-the-line" deduction is that it reduces the taxpayer's adjusted gross income (AGI). As AGI increases, it can cause other tax deductions and credits to be reduced or eliminated. Therefore, deductions that reduce AGI will often provide a greater tax benefit than deductions "below-the-line" that do not reduce AGI.

Rationale

The deduction was authorized by the Military Family Tax Relief Act of 2003 (P.L. 108-121) which expanded tax incentives for military personnel. Under previous law, the expenses could have been deducted as itemized deductions only to the extent that they and other miscellaneous deductions exceeded 2 percent of adjusted gross income. Thus reservists who did not itemize were not able to deduct these expenses and reservists who did itemize could deduct the expenses only in reduced form.

In enacting the new deduction, Congress identified the increasing role that Reserve and National Guard members fulfill in defending the nation and a heavy reliance on service personnel to participate in national defense. Congress noted that more than 157,000 reservists and National Guard were on active duty status — most assisting in Operation Iraqi Freedom at the time of enactment.

Assessment

Some military benefits are akin to the "for the convenience of the employer" benefits provided by private enterprise, such as the allowances for housing, subsistence, payment for moving and storage expenses, overseas cost-of-living allowances, and uniforms. Other benefits are equivalent to employer-provided fringe benefits such as medical and dental benefits, education assistance, group term life insurance, and disability and retirement

benefits. The tax deduction can be justified both as a way of providing support to reservists and as a means of easing travel expense burdens.

Selected Bibliography

Association of the United States Army, Institute of Land Warfare. "Reserve Component Tax Deductions for Soldiers and Employers," *Defense Report*, August 2002.

- Larry R. Garrison, "Tax Planning for Armed Forces Personnel (Part I)," *The Tax Adviser*, v. 30, no. 12 (December 1999), pp. 838-843.
- —, "Tax Planning for Armed Forces Personnel (Part II)," *The Tax Advisor*, v. 31, no. 1 (January 2000), pp. 44-47.
- Patrick J. Kusiak, "Income Tax Exclusion for Military Personnel During War: Examining the Historical Development, Discerning Underlying Principles, and Identifying Areas for Change," *Federal Bar News and Journal*, v. 39, no. 2 (February 1992), pp. 146-151.
- Mark H. Levin, "Benefits for Servicemen and Women Under the Military Family Tax Relief Act of 2003," *The CPA Journal*, v. 76, no. 1, (January 2006), pp. 34-36.
- Peter K. Ogloblin, Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds, U.S. Department of Defense, Office of the Secretary of Defense, September 1996, pp. 137-149.
- Linda L. Poulson and Ananth Seetharaman, "Taxes and the Armed Forces," *The CPA Journal*, vol. 66, no. 4 (April 1996), pp. 22-26.
- U.S. Congress, House Committee on Veterans' Affairs, Subcommittee on Education, Training and Employment, *Transition Assistance Program*. Hearing, 102nd Cong., 2nd sess., March 19, 1992, Serial no. 102-31 (Washington, DC: GPO, 1992).
- —, House Committee on Ways and Means, *Tax Benefits for Individuals Performing Services in Certain Hazardous Duty Areas*, report to Accompany H.R. 2778, 104th Cong., 2nd sess., H. Rpt. 104-465, (Washington, DC: GPO, 1996).
- , Joint Committee on Taxation, *General Explanation of the Tax Reform Act of 1986*, joint committee print, 100th Cong., 1st sess., May 4, 1987, JCS-10-87. (Washington, DC: GPO, 1987), pp. 828-830.
- —, Joint Committee on Taxation, *Technical Explanation of H.R. 3365, The "Military Family Tax Relief Act of 2003," as Passed by the House of Representatives and the Senate*, November 7, 2003, JCX-99-03, pp. 1-19.
- U.S. Department of Defense, Report of the 11th Quadrennial Review of Military Compensation. Washington, 2 volumes (Main Report and Supporting Research Papers), June 2012.
- U.S. Department of the Treasury, Internal Revenue Service, *Armed Forces' Tax Guide*, Publication 3, December 14, 2011.

- , Internal Revenue Service, Travel, Entertainment, Gift, and Car Expenses, Publication 463, January 31, 2012, pp. 15, 35.
- , Office of the Secretary, Tax Reform for Fairness, Simplicity, and Economic Growth; the Treasury Department Report to the President, November 1984, pp. 47-48.
- U.S. General Accounting Office, *Military Compensation: Active Duty Compensation and Its Tax Treatment*, GAO-04-721R, May 7, 2004, pp. 1-32.
- U.S. Government Accountability Office. *Military Personnel: Reserve Component Service members on Average Earn More Income while Activated*, GAO-09-688R, June 23, 2009, pp. 1-41.

National Defense

EXCLUSION OF COMBAT PAY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.0	-	1.0
2012	1.0	-	1.0
2013	1.1	-	1.1
2014	1.2	-	1.2
2015	1.2	-	1.2

Authorization

Section 112.

Description

Compensation received by active members of the Armed Forces is excluded from gross income for any month the service member served in a combat zone or was hospitalized as the result of an injury or illness incurred while serving in a combat zone. For commissioned officers, the exclusion is limited to the maximum compensation for active enlisted military personnel. For hospitalized service members, the exclusion is limited to two years after the service member ended service in the combat zone.

Impact

Section 112 excludes from gross income the compensation received by service members while on active duty in a combat zone. Compensation received by service members is generally taxable.

Rationale

The exclusion for combat pay began during World War I, when military compensation up to \$3,500 was exempt from income. During World War II,

compensation of all active duty military personnel and certain federal government agency employees was exempt from income taxes. During the Korean War, the exclusion was limited to active military personnel in a combat zone, and the amount of the exclusion was limited for commissioned officers. By the end of the Korean War, the exclusion was made permanent. Generally, compensation paid to active military personnel in a combat zone is increased to reflect the hazards inherent to duty in a combat zone. Excluding combat pay from taxation may reflect general public recognition of such military service.

Assessment

The exclusion of combat pay significantly reduces, or eliminates the tax burden, for active military personnel serving in a combat zone.

Selected Bibliography

- CRS Report RL33446, Military Pay and Benefits: Key Questions and Answers, by Lawrence Kapp (see "Combat Zone Tax").
- Martin A. Sullivan, "Economic Analysis: There are no Tax Reformers in Foxholes," *Tax Notes Today*, vol. 98, March 3, 2003, p. 1312.
- U.S. Department of the Treasury, Internal Revenue Service, *Armed Forces' Tax Guide*, Publication 3, December 14, 2011.
- U.S. Government Accountability Office, Military Personnel: Actions Needed to Strengthen Management of Imminent Danger Pay and Combat Zone Tax Relief Benefits, GAO-06-1011, September 2006.
- , Military Personnel: DOD Needs to Improve the Transparency and Reassess the Reasonableness, Appropriateness, Affordability, and Sustainability of Its Military Compensation System, GAO-05-798. July 2005.

International Affairs

EXCLUSION OF INCOME EARNED ABROAD BY U.S. CITIZENS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Indivi	duals	Corporations	Total
	Housing	Salary		
2011	1.3	6.1	-	7.4
2012	1.4	6.3	_	7.7
2013	1.4	6.5	-	7.9
2014	1.5	6.7	-	8.2
2015	1.6	6.9	-	8.5

Authorization

Section 911.

Description

The United States generally taxes its citizens and permanent residents on their worldwide income. Worldwide income includes foreign-source income as well as domestic-source income. Section 911 of the tax code, however, permits U.S. taxpayers who live and work abroad a capped exclusion of their wage and salary income. The maximum amount of wage and salary income that can be excluded has been indexed for U.S. inflation since tax year 2006; the exclusion was \$95,100 for 2012. Qualifying individuals can also exclude certain excess foreign housing costs. Section 911 does not apply to federal employees working abroad. (See the entry on "Exclusion of Certain Allowances for Federal Employees Abroad.") Foreign tax credits (section 901) cannot be claimed for foreign taxes paid on excluded income.

To qualify for either the income or housing cost exclusion, a person must be a U.S. citizen or permanent resident, must have their tax home in a foreign country, and must either be a bona fide resident of a foreign country or have lived abroad for at least 330 days of any 12 consecutive months. Qualified income must be "earned" income rather than investment income. If a person qualifies for only part of the tax year, only part of the annual exclusion can be claimed. The housing cost exclusion is designed to offset higher housing costs of living abroad. According to the tax code, the housing exclusion is equal to the excess of actual foreign housing costs over 16 percent of the applicable year's earned income exclusion amount, but is capped at 30 percent of the taxpayer's maximum foreign earned income exclusion. In practice, however, the Treasury Department has the authority to raise the maximum housing exclusion to reflect actual housing costs in particular foreign cities. While a taxpayer can claim both the housing and income exclusions, the combined exclusions cannot exceed total foreignearned income, including housing allowances.

Impact

U.S. taxpayers who work overseas benefit from section 911 if they can use it to reduce their U.S. tax liability. The impact of the exclusions on Americans working abroad depends partly on whether their foreign taxes are higher or lower than their U.S. taxes (before taking the exclusion into account). For expatriates who pay high foreign taxes, the exclusion holds little importance, because they can use the foreign tax credit to offset their U.S. tax liability. (The foreign tax credit deals with the problem of double taxation of income.) For expatriates who pay little or no foreign taxes, however, the exclusion can reduce or eliminate their U.S. tax liability.

Many employers offer their overseas employees "tax equalization" packages whereby the employer guarantees that the employees will not pay more taxes working overseas than they would pay if they were working in the U.S. The section 911 provisions relieve the employer from having to reimburse employees for U.S. tax on the amounts that are excluded under the income and housing exclusions. In this way, section 911 subsidizes employers sending employees overseas.

Data suggest that U.S. citizens who work abroad have higher real incomes, on average, than people working in the United States. If that is true, where it does reduce taxes, the exclusion reduces the progressivity of the income tax.

The effect of the exclusion on horizontal equity is more complicated. The U.S. tax liability of Americans working abroad can differ from the tax on people with identical real income living in the United States, because of

differences in the cost of living and corresponding differences in nominal income. A person working in a high-cost country needs a higher nominal income to match the real income of a person in the United States. In contrast, an expatriate in a low-cost country needs a lower nominal income than in the U.S. Because tax brackets, exemptions, and the standard deduction are expressed in nominal dollars in the tax code, people living in low-cost countries, who have low nominal incomes, would consequently have a lower tax bill than people with identical real income living in the United States. And, if not for the foreign- earned income exclusion, U.S. citizens working in high-cost countries, with high nominal incomes, would likely pay higher taxes than their U.S. counterparts.

The maximum income exclusion for a particular year is a set dollar amount for all taxpayers and is not linked to the actual cost of living in a particular geographic location. For low-cost foreign locations, it may overcompensate. In that case, the exclusion may have the unintended effect of increasing horizontal inequity in the tax system. Some point out that the tax code does not take into account variations in living costs within the United States; they argue that the appropriate equity comparison would be between an expatriate and a person living in the highest cost area within the United States.

The Internal Revenue Code sets the limit on the housing cost exclusion based on a formula. However, legislation enacted in 2005 granted the Treasury Department authority to adjust the statutory housing cost exclusion cap upward to reflect unusually high costs in particular foreign real estate markets. For tax year 2012, more than 100 foreign cities or regions had housing cost allowances that exceeded the statutory maximum of \$28,530 for that year (equal to 30 percent of the maximum income exclusion of \$95,100 for 2012). For example, the maximum housing exclusion for Dubai was \$57,174; for Paris, \$84,800; and for Hong Kong, \$114,300.

For 2006, approximately 335,000 taxpayers living abroad reported approximately \$36.7 billion in foreign-earned income. Nearly \$18.4 billion, or half of that, was claimed as a foreign-earned income exclusion on their tax returns. Roughly 57 percent of taxpayers who reported foreign-earned income had no U.S. tax liability for 2006, after claiming the foreign-earned income exclusion and the foreign tax credit.

Rationale

The Revenue Act of 1926 (P.L. 69-20) provided an unlimited exclusion for foreign earned income for persons residing abroad for an entire tax year. Supporters of the exclusion argued that the provision would bolster U.S. trade performance, since it would provide tax relief to U.S. expatriates engaged in trade promotion.

The subsequent history of the exclusion shows a continuing attempt by policymakers to find a balance between the provision's perceived beneficial effects on U.S. trade and economic performance and perceptions of tax equity. In 1962, the Kennedy Administration recommended eliminating the exclusion in some cases and scaling it back in others in order to "support the general principles of equity and neutrality in the taxation of U.S. citizens at home and abroad." The final version of the Revenue Act of 1962 (P.L. 87-834) simply capped the exclusion in all cases at \$20.000. The Tax Reform Act of 1976 (P.L. 94-455) would have pared the exclusion further (to \$15,000), again for reasons of tax equity.

However, the Foreign Earned Income Act of 1978 (P.L. 95-615) completely revamped the exclusion such that the 1976 provisions never took effect. The 1978 Act sought to provide tax relief more closely tied to the actual costs of living abroad. It replaced the single exclusion with a set of separate deductions that were linked to various components of the cost of living abroad, such as the excess cost-of-living in general, excess housing expenses, schooling expenses, and home-leave expenses.

In 1981, the emphasis again shifted to the perceived beneficial effects of encouraging U.S. employment abroad; the Economic Recovery Tax Act (ERTA, P.L. 97-34) provided a large flat income exclusion and a separate housing exclusion. ERTA's income exclusion was \$75,000 for 1982, but was scheduled to increase to \$95,000 by 1986. However, concern about the revenue consequences of the increased exclusion led Congress to temporarily freeze the exclusion at \$80,000 under the Deficit Reduction Act of 1984 (P.L. 98-369); annual \$5.000 increases were to resume in 1988. In 1986, as part of its general program of broadening the tax base, the Tax Reform Act (P.L. 99-514) fixed the exclusion at \$70,000. The Taxpayer Relief Act of 1997 (P.L. 105-34) provided the gradual increase in the exclusion to \$80,000 by 2002, as well as indexing for U.S. inflation, beginning in 2008.

The Taxpayer Increase Prevention and Reconciliation Act of 2006 (TIPRA; P.L. 109-222) contained new restrictions on both the housing and

earned income exclusions as a revenue-raising element designed to partly offset unrelated revenue-losing items in the act. The Act contained four principal changes. First, it moved up from 2008 to 2006 the scheduled indexation of the exclusion. (While the combined, net impact of TIPRA's changes was expected to reduce the benefit's revenue loss, the indexation provision, taken alone, likely increases it.) Second, TIPRA changed the way tax rates apply to a taxpayer's income that exceeds the exclusion. Under prior law, if a person had income in excess of the maximum exclusion, tax rates applied to the additional income beginning with the lowest marginal rate. Under TIPRA, marginal rates apply beginning with the rate that would apply if the taxpayer had not used the exclusion. Third, TIPRA changed the "base amount" related to the housing exclusion. Under prior law, the housing exclusion applied to housing expenses exceeding 16 percent of the salary level applicable to the GS-14 federal grade level; TIPRA set the base amount at 16 percent of the foreign earning income exclusion amount (\$95,100 for 2012). In addition, TIPRA capped the housing exclusion at 30 percent of the maximum excludable income; there was no cap under prior law. TIPRA also gave the Treasury Department the authority to adjust the 30 percent housing cost cap upward for individual cities around the world with unusually high housing costs.

Assessment

The foreign-earned income and housing costs exclusions likely increase the number of Americans willing to work overseas in countries with high living costs (in particular, high housing costs) and in countries with low taxes. Without section 911 or a similar provision, U.S. taxes on Americans working abroad would generally be higher than taxes on domestic workers with equivalent real economic income. The higher taxes would discourage Americans from accepting employment overseas. While the uniformly applied income exclusion eases this distortion for some countries, it overcompensates in others, thereby introducing new distortions.

Historically, the foreign-earned income and housing cost exclusions have been defended on the grounds that they help increase U.S. exports, because Americans working abroad play an important role in promoting the sale of U.S. goods abroad. The impact of the provision is uncertain, however. U.S. citizens do not need to be employed by a U.S.-based corporation in order to qualify for the exclusions; they can be employed by foreign corporations. Self-employed Americans working abroad also qualify for the exclusions. Recently, scholars have argued that the exclusions may actually

work against U.S. domestic economic interests by encouraging highly compensated U.S. citizens to work overseas, thereby both expatriating U.S. intellectual capital and reducing U.S. tax revenue.

Selected Bibliography

Association of the Bar of the City of New York, Committee on Taxation of International Transactions. "The Effect of Changes in the Type of United States Tax Jurisdiction Over Individuals and Corporations: Residence, Source and Doing Business." *Record of the Association of the Bar of the City of New York* 46 (December 1991), pp. 914-925.

Bonache, Jaime, Juan I. Sanchez, and Celia Zarraga-Oberty. "The Interaction of Expatriate Pay Differential and Expatriate Inputs on Host Country Nationals' Pay Unfairness." *The International Journal of Human Resource Management*, vol. 20, no. 10 (October 2009), pp. 2135-2149.

Cluett, Ronald. "United States: Sound and Fury, Signifying What? The U.S. Foreign Earned Income Exclusion Debate." *Tax Notes International 51* (September 15, 2008), p. 943.

Dhanda, Michelle. "International Taxation: A Guide for Academics Abroad." *Suffolk Transnational Law Review*, vol. 32, no. 3, September 22, 2009.

Evans, Jeffrey. "911: The Foreign Earned Income Exclusion – Policy and Enforcement." *Virginia Journal of International Law* 37 (Summer 1997), pp. 891-918.

Gravelle, Jane G., and Donald W. Kiefer. U.S. Taxation of Citizens Working in Other Countries: An Economic Analysis. Library of Congress, Congressional Research Service Report 78-91 E. Washington, DC, 1978.

Hollenbeck, Scott, and Maureen Keenan Kahr. "Individual Foreign-Earned Income and Foreign Tax Credit. Internal Revenue Service, *Statistics of Income Bulletin*, vol. 28, no. 4 (Spring 2009), pp. 54-84.

Hrechak, Andrew, and Richard J. Hunter, Jr. "Several Tax Breaks Available for those Working Abroad." *Taxation for Accountants* 52 (May 1994), pp. 282-286.

- U.S. Congress, Conference Committees, 2006. *Tax Increase Prevention and Reconciliation Act of 2005*. Conference report to accompany H.R. 4297. H. Rpt. 109-455, 109th Cong., 2nd sess. Washington, U.S. Government Printing Office, 2006, pp. 307-310.
- U.S. Congress, Senate, Committee on Finance. *Background Fact Sheet on Section 911 Prepared by Chairman Grassley's Finance Committee Staff.* Washington, May 25, 2006. Posted on the committee's web site at [http://finance.senate.gov/newsroom/chairman/release/?id=caab3c6c-81c1-4edb-b6f9-7af28c32b25c]. (Visited October 10, 2012.)
- U.S. Congress, Joint Committee on Taxation. Options to Improve Tax Compliance and Reform Tax Expenditures. Prepared by the Staff of the Joint

Committee on Taxation. Publication JCS-02-05, 109th Cong., 1st sess. Washington, January 27, 2005, pp. 174-177.

U.S. Department of the Treasury. *Taxation of Americans Working Overseas: the Operation of the Foreign Earned Income Exclusion in 1987.* Washington, DC, 1993.

International Affairs

APPORTIONMENT OF RESEARCH AND DEVELOPMENT EXPENSES FOR THE DETERMINATION OF FOREIGN TAX CREDITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	***	0.3	0.3
2012	-	0.4	0.4
2013	-	0.4	0.4
2014	-	0.4	0.4
2015	-	0.4	0.4

Authorization

Sections 861to 863 and 904 and IRS Regulation 1.861-17.

Description

The federal government taxes firms incorporated in the United States on their worldwide income but taxes foreign-based firms on their U.S. income only. When a U.S. firm earns foreign income through a foreign subsidiary, U.S. taxes apply to that income only when it is repatriated to the U.S. parent firm in the form of dividends, royalties, or other income; the foreign income is exempt from U.S. taxation as long as it remains in the control of the foreign subsidiary.

When the foreign-source income is repatriated, the U.S. parent corporation can claim a credit against its U.S. tax liability for any foreign taxes the subsidiary has paid on that income. The credit cannot exceed the U.S. tax due on the foreign-source income. It is intended to avoid double taxation of repatriated foreign income. Excess credits incurred in tax years beginning after October 22, 2004 may be carried back one year and then carried forward up to 10 years.

U.S. corporations with foreign-source income face an overall limitation on the foreign tax credit they may use in a tax year. The limitation is designed to prevent the credit from being used to lower U.S. tax liability on U.S.-source income. Under the limitation, the foreign tax credit cannot exceed a taxpayer's U.S. income tax liability multiplied by a fraction equal to the taxpayer's foreign-source taxable income divided by its worldwide taxable income. For tax years starting after 2006, this limitation must be calculated separately for two categories (or baskets) of foreign-source income: passive income and general income. In this case, passive income refers to investment income such as dividends and interest and income from what are known as qualified electing funds. Any foreign-source income not considered passive generally is treated as belonging to the general-income basket. In determining its taxable income for each basket, a taxpayer must take into account the expenses, losses, and deductions related to the gross income related to each basket.

Federal tax law requires U.S. multinational corporations to allocate deductible expenses that could be related to both foreign and domestic income, such as interest payments and spending on research and development (R&D), between U.S. and foreign earnings. This allocation is not necessarily inconsequential, as the more costs a firm can assign to U.S. sources, the greater its foreign-source income as a share of total income and the larger its foreign tax credit limitation. For firms subject to lower tax rates on their foreign-source income than on their U.S.-source income, a change in the allocation of a small amount of expenses would not affect the foreign taxes it could claim as a credit. But in the case of firms that have excess foreign tax credits because they pay relatively high taxes on foreign-source income, a shift in the allocation of a small amount of expenses could increase the foreign taxes that are creditable, and thus reduce their U.S. taxes.

This requirement does not apply to research expenses that are incurred to satisfy some legal requirement or government regulation.

While research expenses are capital in nature in that they create assets that earn future income, section 174 allows firms to deduct them as a current expense as an incentive to invest in R&D. Most expenses are allocated to U.S. or foreign income on the basis of their relationship to the sources of gross income. But this matching principle is of little use in allocating research expenses, as they are not closely related to gross income in the current tax year. So a different approach is needed.

The allocation of research expenses between foreign-source and U.S.-source income is governed by a set of regulations (Reg. §1.861-17) issued by the Internal Revenue Service (IRS) in 1995. They proceed on the assumption that research expenses ordinarily deducted under section 174 are related to all income associated with broad product categories and can be allocated to all sources of that income, such as sales, royalties, or dividends.

The regulations set forth a two-step process for making this allocation. In the first step, research expenses are allocated to a particular class of income, such as sales, royalties, and dividends. Each class of income is then divided among product categories identified by three-digit standard industrial classification (SIC) codes.

The second step is more complicated. It involves apportioning the research expenses allocated to each product category between foreign-source income (or the statutory grouping) and U.S.-source income (or the residual grouping), using either the sales method or the gross-income method. Both methods allocate a fixed (or exclusive) percentage of the research expenses to the geographic location where more than 50 percent of the expenses were incurred. If that location is the United States, then 50 percent of the expenses are apportioned to U.S.-source income under the sales method, and 25 percent are apportioned to U.S. income under the gross-income method. (If that location happens to be another country, then the same percentages would apply to foreign-source income.) A larger fixed allocation can be made if a taxpaver can demonstrate the R&D related to the expenses is likely to have limited or long-delayed commercial applications outside the United States. If a taxpayer chooses the sales method, the amount of research expenses apportioned to foreign-source income for each product category, after subtracting the 50 percent of expenses assigned to U.S. income. is determined by multiplying the remaining expenses by a fraction equal to the taxpayer's foreign sales divided by its total sales for that category. If the taxpayer chooses the gross-income method, the apportionment is done the same way for each product category, except that gross income is used in lieu of sales in the fraction. An allocation using the gross-income method may not reduce the amount of research expenses allocated to foreign-source income to less than 50 percent of the foreign-source allocation produced by the sales method.

Impact

The regulations require U.S.-based multinational corporations to attribute part of their research expenses to foreign-source income, even if

their R&D was performed entirely in the United States. This rule raises both their U.S.-source income and their tax liability on that income. But since most foreign governments evidently do not allow subsidiaries earning income in their territories to deduct from their taxable income any research expenses attributable to U.S. operations, the required allocation does not lower by a similar amount the foreign taxes paid by the U.S. parent corporations. As a result, the regulations have the effect of making the foreign tax credits claimed by the average U.S. multinational corporation with R&D investments larger than they would be if research expenses were allocated strictly according to the location of R&D activity.

The tax expenditure associated with the regulations lies in the larger foreign tax credits that some corporations can use as a result of the required allocation of research expenses to foreign-source income.

Rationale

In issuing regulations on the allocation of research expenses for the determination of the foreign tax credit limitation, the IRS appears to have been guided by the notion that if R&D conducted in the United States often contributes to the development of goods and services sold in foreign markets, then the accurate measurement of foreign income for U.S. multinational companies requires that part of their domestic R&D expenses be deducted from foreign income.

The current regulations under sections 861 to 863 trace their origin to a set of final regulations (Reg. §1.861-8) issued by the IRS in 1977. They required that a multinational firm's research expenses be allocated according to either the proportion of sales that occurred in each country or the proportion of gross income that had its source in each country. This meant, for example, that if a firm received 25 percent of its worldwide revenue from the sale of a product in the United States, then it had to allocate 25 percent of the research costs associated with that product to U.S.-source income and the remaining 75 percent to foreign-source income. The regulations also contained a so-called "place-of-performance" option that allowed a taxpayer to allocate 30 percent of its research expenses to any location where it performed over half of its R&D, before applying the sales formula for the allocation of its remaining research expenses.

The 1977 regulations proved controversial from the start. Critics charged that they reduced domestic R&D spending and encouraged U.S. firms to transfer some of their R&D activities to foreign locations.

Congress responded to these criticisms by adopting a two-year suspension of the regulations through the Economic Recovery Tax Act of 1981 (ERTA). During that period, U.S. firms were allowed to allocate all of their U.S. research costs as they saw fit.

In a report on the regulations mandated by ERTA and issued in 1983, the Treasury Department recommended that the suspension be extended an additional two years to allow more time to assess their likely effects. Congress agreed with the recommendation and suspended the regulations for another two years through the Deficit Reduction Act of 1984. In extending the suspension, it noted that its assessment of the regulations would focus on whether a repeal would be more effective than other options in boosting domestic business R&D investment.

But when Congress passed the Tax Reform Act of 1986, it indicated that the issue of whether to retain, repeal, or modify the regulations still needed more time for analysis and discussion. So the act extended the suspension through 1987. It also altered the regulations to permit taxpayers using the place-of-performance option to allocate 50 percent of its research expenses to the location where more than half of its R&D was done, and to use the gross-income method to allocate the remaining expenses.

The Technical and Miscellaneous Revenue Act of 1988 temporarily replaced the regulations with a set of more liberal rules that applied in 1988 only. Under the act, firms were required to allocate 64 percent of their domestic research expenses to U.S. income and 64 percent of their foreign research expenses to foreign income for the first four months of the year. The remaining 36 percent of expenses could be allocated using either the gross-income or sales method. For the remaining eight months of 1988, taxpayers were required to use the allocation methods specified in the 1977 regulations.

From 1988 to 1991, Congress passed three measures that retained the requirement that 64 percent of research expenses be allocated to U.S. income: the Omnibus Budget Reconciliation Act of 1989, the Omnibus Budget Reconciliation Act of 1990, and the Tax Extension Act of 1991. This treatment expired on August 1, 1992.

Under the Omnibus Budget Reconciliation Act of 1993, taxpayers were allowed to allocate up to 50 percent of research expenses to U.S. income, and they could allocate the remaining 50 percent between U.S. and foreign income using either the sales or gross-income method. This provision expired on December 31, 1994.

In December 1995, the IRS issued proposed regulations that made three significant changes in the 1977 regulations. First, the proposed regulations would allow taxpayers to identify product categories by using three-digit SIC codes instead of two-digit codes. Second, the percentage of research expenses that could be exclusively allocated to a location under the sales method would rise from 30 percent to 50 percent. Third, a decision to use the sales or gross-income method would be treated as a binding election to use the same method in future tax years. The current regulations emerged from these proposed regulations.

Assessment

The current regulations under sections 861 to 863 governing the allocation of research expenses for the determination of the foreign tax credit limitation still provoke controversy. One source of controversy concerns their economic rationale.

Proponents argue the regulations are justified mainly because R&D performed by U.S.-based firms in the United States leads to the development of goods and services that they sell profitably at the same time in the United States and in other countries through subsidiaries. Under these circumstances, the accurate measurement of the foreign taxable income of these firms requires that part of their U.S. research expenses be deducted from foreign income.

Critics say this view of the process through which U.S.-based multinational companies earn foreign income from goods and services developed largely through their U.S. R&D activities is unrealistic. In their view, technological innovations generally are exploited commercially first in the country where they were developed, and only after a lengthy and often unpredictable delay are they then sold or used in other countries. Under this scenario, the regulations cannot be justified, as the accurate measurement of U.S. income requires that all (or nearly all) U.S. research expenses be deducted from U.S. income.

A policy issue raised by these differing perspectives relates to the geographic spread of the spillover benefits of R&D investments. If the spillover is primarily international in scope, then the argument made by proponents of the regulations would appear to have merit. But if the spillover is primarily local in scope, then critics would appear to be justified in calling for the repeal of the regulations and their replacement with a set of rules more favorable to the allocation of research expenses to U.S. income.

Another major source of controversy is the impact of the regulations on domestic business investment in R&D and the incentives for U.S. firms to transfer R&D activities overseas.

Critics have long argued that the regulations have the effect of lowering this investment and encouraging U.S. companies to transfer some of their R&D to foreign locations with higher tax rates than U.S. tax rates. Such an undesirable outcome, critics say, results from the impact of the regulations on the worldwide tax liabilities of U.S. multinational corporations, especially those with excess foreign tax credits. Most foreign governments do not allow a deduction for the cost of R&D conducted in the United States. Therefore, allocating a U.S. business expense to foreign rather than U.S. income has the same effect on a firm's net tax liability under federal tax law as denying it a deduction for this expense. If a foreign government allows a deduction for this expense, a U.S. firm's foreign taxes would decline but its total tax liability would remain about the same. But if the foreign government disallows a deduction, the increase in the firm's U.S. taxes would not be offset by a reduction in its foreign taxes. In this case, both the U.S. and foreign governments are taxing income equal in amount to the denied deduction.

According to critics, this double taxation could be a problem for U.S. companies with excess foreign tax credits. It could lead them to reduce domestic business R&D investment and a shift of investment funds to less productive uses. For such companies, the regulations create a tax incentive for shifting R&D operations abroad that is equal to the difference between U.S. tax rates and the tax rates in foreign locations.

In contrast, supporters of the regulations see no compelling reason for the U.S. government to get rid of them and instead permit taxpayers to deduct the entire amount of their U.S. research expenses from U.S. income. They point out that doing so could create a situation that U.S. tax law tries mightily to avoid: the use of foreign tax credits against a firm's tax liability on U.S.-source income. In the view of supporters, if action should be taken to eliminate any double taxation caused by the regulations, it should be taken by foreign governments that disallow a deduction for U.S. research expenses. They also dispute the claim that few foreign governments (if any) permit such a deduction. To the extent that these governments do allow those expenses to be deducted, supporters say that allocating the entire amount of U.S. research expenses to U.S. income would be tantamount to allowing a

double deduction and creating a tax subsidy for domestic R&D investment, not a tax penalty as critics charge.

A policy issue raised by these opposing arguments concerns the net effect of current tax law on the incentive to invest in domestic R&D. There seems to be lingering uncertainty over how the regulations have affected this incentive. So additional research on this issue seems warranted. Lawmakers may also wish to know how the regulations have affected the incentive to undertake domestic R&D investment provided by the research tax credit under section 41 and the expensing of eligible research costs under section 174. Given the compelling economic rationale for providing government support for domestic R&D investment, it might be useful to find out if the regulations tend to bolster or undercut the stimulative effect of these two research tax incentives.

Some specialists in international tax policy argue that the rules for the sourcing of income and the allocation of research expenses should be designed to accomplish three aims: 1) to avoid the double taxation of income; 2) to avoid imposing too little tax on income; and 3) to achieve an equitable distribution of tax revenue from the operations of multinational companies among sovereign governments. In their view, the only way to accomplish all three objectives simultaneously is to come to an international consensus on a set of such rules. A harmonization of tax systems among countries that are major players in the global economy would probably be needed to achieve such an understanding. Lawmakers may want to explore such an option in finding a solution to the problems posed by the current regulations for allocating research expenses for U.S.-based multinational corporations.

Selected Bibliography

Bergquist, Philip J. "Proposed Section 861 Regulations." *The Tax Executive*, vol. 47, no. 6, November/December 1995, pp. 473-477.

Bishcel, Jon E. "Optimizing the Benefits From R&D Expenses Under the Allocation and Apportionment Regs." *Journal of Taxation*, vol. 48, no. 6, p. 332.

Brumbaugh, David L. *Allocation of Research and Development Costs and the U.S. Foreign Tax Credit.* Library of Congress, Congressional Research Service Report 89-220 E. Washington, DC: April 4, 1989.

Goodman, Mark E. "IRS Issues Proposed Regulations on Allocation and Apportionment of Research and Experimental Expenditures." *The Tax Adviser*, vol. 27, no. 9, September 1996, pp. 533-534.

Gravelle, Jane G. and Donald J. Marples. *The Foreign Tax Credit's Interest Allocation Rules*. Library of Congress, Congressional Research Service Report RL34494. Washington, DC: March 19, 2010.

Hines, James R Jr. and Adam B. Jaffe. "International Taxation and the Location of Inventive Activity." in *International Taxation and Multinational Activity*, James R. Hines, Jr., ed. University of Chicago Press, 2001, pp. 201-229.

Rashkin, Michael D. Practical Guide to Research and Development Tax Incentives. CCH, Chicago, IL: 2007, pp. 43-47.

- U.S. Congress, Committee on Ways and Means, Subcommittee on Oversight. *The Research and Experimentation Tax Credit and the Allocation of Research Expenses Under Internal Revenue Code Section 861*. Hearing, 104th Cong., 1st Sess., GPO, Washington, DC: 1996.
- U.S. Congress, Joint Committee on Taxation. *General Explanation of the Economic Recovery Tax Act of 1981*. JCS-71-81, GPO, Washington, DC: 1981, pp. 141-142.

International Affairs

EXCLUSION OF CERTAIN ALLOWANCES FOR FEDERAL EMPLOYEES ABROAD

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.7	-	1.7
2012	1.8	-	1.8
2013	1.9	-	1.9
2014	2.0	-	2.0
2015	2.1	-	2.1

Authorization

Section 912.

Description

U.S. federal civilian employees who work abroad are allowed to exclude from income certain special allowances they receive that are generally linked to the cost-of-living. These federal employees are not eligible for the foreign earned income or housing exclusion provided to private-sector individuals under section 911. (See the entry on section 911, "Exclusion of Income Earned Abroad by U.S. Citizens.") Like other U.S. citizens, federal employees working abroad are subject to U.S. taxes and can credit foreign taxes against their U.S. taxes. However, federal employees are usually exempt from foreign taxes.

Specifically, section 912 excludes certain amounts received under provisions of the Foreign Service Act of 1980, the Central Intelligence Act of 1949, the Overseas Differentials and Allowances Act, and the Administrative Expenses Act of 1946. The allowances are primarily for the higher cost of living abroad, housing, education, and travel. Section 912 also excludes cost-of-living allowances received by federal employees stationed in U.S. possessions, Hawaii, and Alaska. Travel, housing, food, clothing, and certain

other allowances received by members of the Peace Corps also are excluded. However, special allowances for hardship posts are not eligible for the exclusion.

Impact

Federal employees abroad may receive a significant portion of their compensation in the form of housing allowances, cost-of-living differentials, and other allowances. The income exclusions permitted under section 912 can substantially reduce their taxes. Data suggest that real incomes for federal workers abroad are generally higher than real incomes in the United States. Consequently, section 912 exclusions probably reduce the progressivity of the income tax.

Section 912's impact on horizontal equity (the equal treatment of equals) is more ambiguous. Without section 912 or a similar provision, federal employees in high-cost countries would likely pay higher taxes than persons with identical real incomes who work in the United States. The higher nominal income needed to offset higher living costs abroad would place federal employees stationed abroad in a higher tax bracket. It would also reduce the value of personal exemptions and the standard deduction, which are set at the same nominal dollar amount, regardless of where the taxpayer lives or works.

The complete exclusion of cost-of-living allowances probably overcompensates for this effect. U.S. citizens employed abroad in the private sector are permitted to exclude up to \$95,100 in 2012, rather than an amount explicitly linked to cost-of-living allowances. Given the flat amount, whether the tax treatment of federal workers is more or less favorable than that of private-sector workers depends on the size of the federal worker's cost-of-living allowance.

Some have argued that because no tax relief is provided for people who work in high-cost areas in the United States, horizontal equity requires only that persons abroad be taxed no more heavily than a person in the highest-cost area in the U.S. It might also be argued that the cost-of-living exclusion for employees in Alaska and Hawaii violates horizontal equity, since private-sector workers in those states do not receive a tax exclusion for cost-of-living allowances.

Rationale

The section 912 exclusions were first enacted by the Revenue Act of 1943. Apparently the costs of living abroad were rising. Congress determined that federal personnel overseas were engaged in "highly important" duties and that the allowances merely offset the extra costs of working and living abroad. Congress determined that the Government should bear the full burden of the excess living costs, including any income taxes that would otherwise be imposed on cost-of-living allowances.

The Foreign Service Act of 1946 expanded the list of excluded allowances beyond cost-of-living allowances to include housing, travel, and certain other allowances. In 1960, the exclusions were further expanded to include allowances received under the Central Intelligence Agency Act. In 1961, certain allowances received by Peace Corps members were added to the list of exclusions.

Assessment

The benefit from the section 912 exclusions is largest for federal employees abroad who receive a substantial part of their income as cost-of-living, housing, education, or other allowances. Beyond this, the effects of the exclusions are uncertain. The exclusions may encourage employees to request that a greater portion of their compensation be paid in the form of these tax-favored benefits.

It could be argued that the federal agency that employs a person who claims a section 912 exclusion does not directly bear the cost of the exclusion. That is, the exclusion reduces the income tax revenue of the federal government in general, but that revenue cost is not reflected in the budgets of the particular federal agencies with overseas employees. As a consequence, section 912 may enable individual federal agencies to employ more U.S. citizens abroad than they otherwise would or could if they were held accountable for the full cost of those employees, including the income tax forgiven on qualifying allowances.

Selected Bibliography

Field, Marcia, and Brian Gregg. U.S. Taxation of Allowances Paid to U.S. Government Employees. In U.S. Department of the Treasury, *Essays in International Taxation: 1976*. Washington, DC, Government Printing Office, 1976, pp. 128-150.

U.S. Internal Revenue Service. *U.S. Government Civilian Employees Stationed Abroad.* Publication 516. Washington, DC, Government Printing Office, February 2012.

International Affairs

DEFERRAL OF ACTIVE INCOME OF CONTROLLED FOREIGN CORPORATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	15.3	15.3
2012	-	16.1	16.1
2013	-	17.3	17.3
2014	-	18.4	18.4
2015	-	19.6	19.6

Authorization

Sections 11(d), 882, and 951-964.

Description

The United States taxes firms incorporated in the United States on their worldwide income but taxes foreign-chartered corporations only on their U.S.-source income. Thus, when a U.S. firm earns foreign-source income through a foreign subsidiary, U.S. taxes apply to the income only when it is repatriated to the U.S. parent firm as dividends or other income; the income is exempt from U.S. taxes as long as it remains in the hands of the foreign subsidiary. At the time the foreign income is repatriated, the U.S. parent corporation can credit foreign taxes the subsidiary has paid on the remitted income against U.S. taxes, subject to certain limitations. Because the deferral principle permits U.S. firms to delay any residual U.S. taxes that may be due after foreign tax credits, it provides a tax benefit for firms that invest in countries with low tax rates.

Subpart F of the Internal Revenue Code (sections 951-964) provides an exception to the general deferral principle. Under its provisions, certain income earned by foreign corporations controlled by U.S. shareholders is deemed to be distributed whether or not it actually is, and U.S. taxes are

assessed on a current basis rather than deferred. Income subject to Subpart F is generally income related to passive investment rather than income from active business operations. Also, certain types of sales, services, and other income whose geographic source is relatively easily shifted is included in Subpart F.

While U.S. tax (less foreign tax credits) generally applies when tax-deferred income is ultimately repatriated to the United States, a provision of the American Jobs Creation Act of 2004 (P.L. 108-357) provided a temporary (one-year) 85 percent deduction for repatriated dividends. For a corporation subject to the top corporate tax rate of 35 percent, the deduction had an effect similar to a reduction in the tax rate on repatriations to 5.25 percent. The deduction applied to a one-year period consisting (at the taxpayer's election) of either the first tax year beginning on or after P.L. 108-357's date of enactment (October 22, 2004) or the taxpayer's last tax year beginning before the date of enactment.

Impact

Deferral provides an incentive for U.S. firms to invest in active business operations in low-tax foreign countries rather than the United States, and thus probably reduces the stock of capital located in the United States. Because the U.S. capital-labor ratio is therefore probably lower than it otherwise would be and U.S. labor has less capital with which to work, deferral likely reduces the general U.S. wage level. At the same time, U.S. capital and foreign labor probably gain from deferral. Deferral also probably reduces world economic efficiency by distorting the allocation of capital in favor of investment abroad.

The one-year deduction for repatriations enacted in 2004 likely increased the repatriation of funds from foreign subsidiaries. However, at least part of the increase likely consisted of a shift in the timing of repatriations from future periods towards the present, as firms took advantage of the one-year window. While the provision was intended, in part, to increase domestic investment — its supporters argued that repatriated funds would be invested in the United States — firms' disposition of the repatriations is not certain.

Rationale

Deferral has been part of the U.S. tax system since the origin of the corporate income tax in 1909. While deferral was subject to little debate in

its early years, it later became controversial. In 1962, the Kennedy Administration proposed a substantial scaling-back of deferral in order to reduce outflows of U.S. capital. Congress, however, was concerned about the potential effect of such a step on the position of U.S. multinationals vis- a-vis firms from other countries and on U.S exports. Instead of repealing deferral, the Subpart F provisions were adopted in 1962, and were aimed at taxpayers who used deferral to accumulate funds in so-called "tax haven" countries. (Hence, Subpart F's concern with income whose source can be easily manipulated.)

In 1975, Congress again considered eliminating deferral, and in 1978 President Carter proposed its repeal, but on both occasions the provision was left essentially intact. Subpart F, however, was broadened by the Tax Reduction Act of 1975, the Tax Reform Act of 1976, the Tax Equity and Fiscal Responsibility Act of 1982, the Deficit Reduction Act of 1984, the Tax Reform Act of 1986, and the Omnibus Reconciliation Act of 1993 (OBRA93). OBRA93 added section 956A to the tax code, which expanded Subpart F to include foreign earnings that firms retain abroad and invest in passive assets beyond a certain threshold.

In recent years, however, the trend has been incremental restrictions of Subpart F and expansions of deferral. For example, the Small Business Job Protection Act of 1996 repealed section 956A. And the Tax Relief Extension Act of 1999 (P.L. 106-170) extended a temporary exemption from Subpart F for financial services income. In 2004, the American Jobs Creation Act relaxed Subpart F in the area of shipping income and provided a one-year temporary tax reduction for income repatriated to U.S. parents from overseas subsidiaries.

Assessment

The U.S. method of taxing overseas investment, with its worldwide taxation of branch income, limited foreign tax credit, and the deferral principle, can either pose a disincentive, present an incentive, or be neutral towards investment abroad, depending on the form and location of the investment. For its part, deferral provides an incentive to invest in countries with tax rates that are lower than those of the United States.

Defenders of deferral argue that the provision is necessary to allow U.S. multinationals to compete with firms from foreign countries; they also maintain that the provision boosts U.S. exports. However, economic theory suggests that a tax incentive such as deferral does not promote the efficient

allocation of investment. Rather, capital is allocated most efficiently — and world economic welfare is maximized — when taxes are neutral and do not distort the distribution of investment between the United States and abroad. Economic theory also holds that while world welfare may be maximized by neutral taxes, the economic welfare of the United States would be maximized by a policy that goes beyond neutrality and poses a disincentive for U.S. investment abroad.

Supporters of a "territorial" tax system would permanently exempt U.S. tax on repatriated dividends, thus eliminating U.S. tax even on a postponed basis. Several arguments have been made in support of territorial taxation. One is based on the notion that changes in the international economy have made economic theory's traditional notions of efficiency and neutrality obsolete. (This analysis, however, is not the consensus view of economists expert in the area.) This argument maintains that efficiency is promoted if taxes do not inhibit U.S. multinationals' ability to compete for foreign production opportunities or interfere with their ability to exploit the returns to research and development. Another argument holds that the current tax system produces so many distortions in multinationals' behavior that simply exempting foreign-source business income from tax would improve economic efficiency.

Selected Bibliography

Altshuler, Rosanne. "Recent Developments in the Debate on Deferral." *Tax Notes* 20 (April 3, 2000), p. 1579.

. "Do Repatriation Taxes Matter? Evidence from the Tax Returns of U.S. Multinationals," in . Martin Feldstein. James R. Hines Jr., and R. Glenn Hubbard, eds., *The Effects of Taxation on Multinational Corporations* (Chicago, University of Chicago Press, 1995)

Ault, Hugh J., and David F. Bradford. "Taxing International Income: An Analysis of the U.S. System and Its Economic Premises." In *Taxation in the Global Economy*, ed. Assaf Razin and Joel Slemrod, 11-52. Chicago: University of Chicago Press, 1990.

Avi-Yonah, Reuven S., and Nicola Sartori. "International Taxation and Competitiveness: Introduction and Overview." *Tax Law Review* 65 (2012)

Bergsten, C. Fred, Thomas Horst, and Theodore H. Moran. "Tax Issues." In *American Multinationals and American Interests*. Washington, DC: The Brookings Institution, 1977.

Desai, Mihir, Fritz Foley, and James Hines, "The Demand for Tax Haven Operations," *Journal of Public Finance* 90 (February 2006), pp. 513-531.

Desai, Mihir, and James Hines, "Old Rules and New Realities: Corporate Tax Policy in a Global Setting," *National Tax Journal* 57 (December 2004), pp. 937-960.

Engel, Keith. "Tax Neutrality to the Left, International Competitiveness to the Right, Stuck in the Middle with Subpart F." *Texas Law Review* 79 (May 2001), pp. 1525-1606.

Frisch, Daniel J. "The Economics of International Tax Policy: Some Old and New Approaches." *Tax Notes* 47 (April 30, 1990), pp. 581-591.

Gourevitch, Harry G. Anti-Tax Deferral Measures in the United States and Other Countries. Library of Congress, Congressional Research Service Report 95-1143 A, (1995).

Graetz, Michael J., and Paul W. Oosterhuis, "Structuring an Exemption System for Foreign Income of U.S. Corporations," National Tax Journal 54 (December 2001), pp. 771-786.

Gravelle, Jane G. Reform of U.S. International Taxation: Alternatives. Library of Congress, Congressional Research Service Report RL34115, (2010).

- . Tax Havens: International Tax Avoidance and Evasion. Library of Congress, Congressional Research Service Report R40623, (2010).
- . Moving to a Territorial Income Tax: Options and Challenges, Library of Congress, Congressional Research Service Report R42624, (2012).
- . "Issues in International Tax Policy." *National Tax Journal* 57 (September 2004), pp. 773-778.

Grubert, Harry and Rosanne Altshuler. "Corporate Taxes in the World Economy: Reforming the Taxation of Cross-border Income," in Fundamental Tax Reform: Issues, Choices, and Implications, John W. Diamond and George R. Zodrow, eds. (Cambridge, MA: MIT Press, 2008), pp. 319-354.

Grubert, Harry, "Comment on Desai and Hines, 'Old Rules and New Realities: Corporate Tax Policy in a Global Setting," *National Tax Journal*, vol. 58, Jun. 2005, pp. 263-278.

_. and John Mutti, Taxing International Business Income: Dividend Exemption versus the Current System (Washington: American Enterprise Inst., 2001), 67 pp.

Hartman, David G. "Deferral of Taxes on Foreign Source Income," *National Tax Journal* 30 (December 1977), pp. 457-462.

— . "Tax Policy and Foreign Direct Investment." *Journal of Public Economics* 26 (February 1985), pp. 107-121.

Kadet, Jeffery M. "U.S. International Tax Reform: What Form Should It Tax?" *Tax Notes International* 65 (January 30, 2012), pp. 363-369.

Keightley, Mark. U.S. International Corporate Taxation: Basic Concepts and Policy Issues, Library of Congress, Congressional Research Service Report R41852 (2011).

Marples, Donald J. and Jane G. Gravelle. *Tax Cuts on Repatriation Earnings as Economic Stimulus: An Economic Analysis.* Library of Congress, Congressional Research Service Report R40178, (2011).

Rousslang, Donald. "Deferral and the Optimal Taxation of International Investment Income." *National Tax Journal* 53 (September 2000), pp. 589-601.

Slemrod, Joel. "Effect of Taxation with International Capital Mobility." In *Uneasy Compromise: Problems of a Hybrid Income-Consumption Tax*, ed. Henry J. Aaron, et al., 115-147. Washington, DC: The Brookings Institution, 1988.

- U.S. Congress. Joint Committee on Taxation. Factors Affecting the International Competitiveness of the United States. Joint Committee Print. 102nd Congress, 1st session. Washington, DC: Government Printing Office, May 30, 1991.
- U.S. Department of the Treasury, Office of Tax Policy. *The Deferral of Income Earned Through U.S. Controlled Foreign Corporations*. Washington, DC: December, 2002.

Yoder, Llowell D. "Subpart F in Turmoil: Low Taxed Active Income Under Siege." *Taxes* 77 (March 1999), pp. 142-166.

INVENTORY PROPERTY SALES SOURCE RULE EXCEPTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	6.0	6.0
2012	-	6.1	6.1
2013	-	6.2	6.2
2014	-	6.3	6.3
2015	-	6.4	6.4

Authorization

Sections 861, 862, 863, and 865.

Description

The tax code's rules governing the source of inventory sales interact with its foreign tax credit provisions in a way that can effectively exempt a portion of a firm's export income from U.S. taxation.

In general, the United States taxes U.S. corporations on their worldwide income. The United States also permits firms to credit foreign taxes they pay against U.S. taxes they would otherwise owe.

Foreign taxes, however, are only permitted to offset the portion of U.S. taxes due on foreign-source income. Foreign taxes that exceed this limitation are not creditable and become so-called "excess credits." It is here that the source of income becomes important: firms that have excess foreign tax credits can use these credits to reduce U.S. taxes if they can shift income from the U.S. to the foreign operation. This treatment effectively exempts such income from U.S. taxes.

The tax code contains a set of rules for determining the source ("sourcing") of various items of income and deduction. In the case of sales of

personal property, gross income is generally sourced on the basis of the residence of the seller. U.S. exports covered by this general rule thus generate U.S. — rather than foreign — source income.

The tax code provides an important exception, however, in the case of sales of inventory property. Inventory that is purchased and then resold is governed by the so-called "title passage" rule: the income is sourced in the country where the sale occurs. Since the country of title passage is generally quite flexible, sales governed by the title passage rules can easily be arranged so that the income they produce is sourced abroad.

Inventory that is both manufactured and sold by the taxpayer is treated as having a divided source. Unless an independent factory price can be established for such property, half of the income it produces is assigned a U.S. source and half is governed by the title passage rule. As a result of the special rules for inventory, up to 50 percent of the combined income from export manufacture and sale can be effectively exempted from U.S. taxes. A complete tax exemption can apply to export income that is solely from sales activity.

Impact

When a taxpayer with excess foreign credits is able to allocate an item of income to foreign rather than domestic sources, the amount of foreign taxes that can be credited is increased and the effect is identical to a tax exemption for a like amount of income. The effective exemption that the source rule provides for inventory property thus increases the after-tax return on investment in exporting. In the long run, however, the burden of the corporate income tax (and the benefit of corporate tax exemptions) probably spreads beyond corporate stockholders to owners of capital in general.

Thus, the source-rule benefit is probably shared by U.S. capital in general, and therefore probably disproportionately benefits upper-income individuals. To the extent that the rule results in lower prices for U.S. exports, a part of the benefit probably accrues to foreign consumers of U.S. products.

Rationale

The tax code has contained rules governing the source of income since the foreign tax credit limitation was first enacted as part of the Revenue Act of 1921. Under the 1921 provisions, the title passage rule applied to sales of personal property in general; income from exports was thus generally assigned a foreign source if title passage occurred abroad. In the particular case of property both manufactured and sold by the taxpayer, income was treated then, as now, as having a divided source.

The source rules remained essentially unchanged until the advent of tax reform in the 1980s. In 1986, the Tax Reform Act's statutory tax rate reduction was expected to increase the number of firms with excess foreign tax credit positions and thus increase the incentive to use the title passage rule to source income abroad.

Congress was also concerned that the source of income be the location where the underlying economic activity occurs. The Tax Reform Act of 1986 thus provided that income from the sale of personal property was generally to be sourced according to the residence of the seller. Sales of property by U.S. persons or firms were to have a U.S. source.

Congress was also concerned, however, that the new residence rule would create difficulties for U.S. businesses engaged in international trade. The Act thus made an exception for inventory property, and retained the title passage rule for purchased-and-resold items and the divided-source rule for goods manufactured and sold by the taxpayer.

More recently, the Omnibus Budget Reconciliation Act of 1993 repealed the source rule exception for exports of raw timber.

Assessment

Like other tax benefits for exporting, the inventory source-rule exception probably increases exports. At the same time, however, exchange rate adjustments probably ensure that imports increase also. Thus, while the source rule probably increases the volume of U.S. trade, it probably does not improve the U.S. trade balance. Indeed, to the extent that the source rule increases the federal budget deficit, the provision may actually expand the U.S. trade deficit by generating inflows of foreign capital and their accompanying exchange rate effects. In addition, the source-rule exception probably reduces U.S. economic welfare by transferring part of its tax benefit to foreign consumers.

Selected Bibliography

Brumbaugh, David L. "Export Tax Subsidies," in Cordes, et al., eds., *The Encyclopedia of Taxation and Tax Policy*, 2nd edition. Washington: Urban Institute, 2005. pp. 130-133.

— . Tax Benefit for Exports: The Inventory Source Rules. Library of Congress, Congressional Research Service Report 97-414 E. (1997).

Hammer, Richard M., and James D. Tapper. "The Foreign Tax Credit Provisions of the Tax Reform Act of 1986." *Tax Adviser* 18 (February 1987), pp. 76-80, 82-89.

Krugman, Paul R. and Maurice Obstfeld. "Export Subsidies: Theory," In *International Economics: Theory and Policy*, 3rd ed. New York: Harper Collins, 1994.

Maloney. David M., and Terry C. Inscoe. "A Post-Reformation Analysis of the Foreign Tax Credit Limitations." *International Tax Journal* 13 (Spring 1987), pp. 111-127.

Marples, Donald J.. *Taxes and International Competitiveness*. Library of Congress, Congressional Research Service Report RS22445 (2008).

Rousslang, Donald J. "The Sales Source Rules for U.S. Exports: How Much Do They Cost?" *Tax Notes International* 8 (February 21, 1994), pp. 527-535.

- —, and Stephen P. Tokarick. "The Trade and Welfare Consequences of U.S. Export-Enhancing Tax Provisions." *IMF Staff Papers* 41 (December 1994), pp. 675-686.
- U.S. Congress, Joint Committee on Taxation. Factors Affecting the International Competitiveness of the United States. Joint Committee Print. 98th Congress, 2nd session. Washington, DC: May 30, 1991.
- . "Determination of Source in Case of Sales of Personal Property." In *General Explanation of the Tax Reform Act of 1986*. Joint Committee Print, 100th Congress, 1st session. May 4, 1987.
- U.S. Congressional Budget Office. "Options to Increase Revenues: Eliminate the Source-Rules Exception for Exports." In *Budget Options*. Washington, DC: 2007.
- U.S. Department of the Treasury. *Report to the Congress on Earnings Stripping, Transfer Pricing and U.S. Income Tax Treaties.* Washington, DC: 2007.
- U.S. Department of the Treasury. Report to the Congress on the Sales Source Rules. Washington, DC: 1993.

DEFERRAL OF CERTAIN FINANCING INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	6.2	6.2
2012	-	4.8	4.8
2013	-	•	-
2014	-	-	-
2015	-	-	-

Authorization

Sections 953 and 954.

Description

Under the U.S. method of taxing overseas investment, income earned abroad by foreign-chartered subsidiary corporations that are owned and controlled by U.S. investors or firms is generally not taxed if it is reinvested abroad. Instead, a tax benefit known as "deferral" applies: U.S. taxes on the income are postponed until the income is repatriated to the U.S. parent as dividends or other income.

The deferral benefit is circumscribed by several tax code provisions; the broadest in scope is provided by the tax code's Subpart F. Under Subpart F, certain types of income earned by certain types of foreign subsidiaries are taxed by the United States on a current basis, even if the income is not actually remitted to the firm's U.S. owners. Foreign corporations potentially subject to Subpart F are termed Controlled Foreign Corporations (CFCs); they are firms that are more than 50% owned by U.S. stockholders, each of whom own at least 10% of the CFC's stock. Subpart F subjects each 10% shareholder to U.S. tax on some (but not all) types of income earned by the CFC. In general, the types of income subject to Subpart F are income from a CFC's passive investment—for example, interest, dividends, and gains from

the sale of stock and securities—and a variety of types of income whose geographic source is thought to be easily manipulated.

Ordinarily, income from banking and insurance could in some cases be included in Subpart F. Much of banking income, for example, consists of interest; investment income of insurance companies could also ordinarily be taxed as passive income under Subpart F. Certain insurance income is also explicitly included in Subpart F, including income from the insurance of risks located outside a CFC's country of incorporation. However, Congress enacted a temporary exception from Subpart F for income derived in the active conduct of a banking, financing, or similar business by a CFC predominantly engaged in such a business. Congress also enacted a temporary exception for investment income of an insurance company earned on risks located within its country of incorporation.

In short, Subpart F is an exception to the deferral tax benefit, and the tax expenditure at hand is an exception to Subpart F itself for a range of certain financial services income. Prior to enactment of the Tax Increase Prevention and Reconciliation Act of 2006 (TIPRA; P.L. 109-222), the exception was scheduled to expire at the end of 2006. TIPRA extended the provision for two years, through 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) subsequently extended the provision through 2009. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010, (P.L. 111-312) extended this provision through 2011.

Impact

The temporary exceptions pose an incentive in certain cases for firms to invest abroad; in this regard its effect is parallel to that of the more general deferral principle, which the exception restores in the case of certain banking and insurance income.

The provision only poses an incentive to invest in countries with tax rates lower than those of the United States; in other countries, the high foreign tax rates generally negate the U.S. tax benefit provided by deferral. In addition, the provision is moot (and provides no incentive) even in low-tax countries for U.S. firms that pay foreign taxes at high rates on other banking and insurance income. In such cases, the firms have sufficient foreign tax credits to offset U.S. taxes that would be due in the absence of deferral. (In the case of banking and insurance income, creditable foreign taxes must have been paid with respect to other banking and insurance income. This may accentuate the importance of the exception to Subpart F.)

Rationale

Subpart F itself was enacted in 1962 as an effort to curtail the use of tax havens by U.S. investors who sought to accumulate funds in countries with low tax rates—hence Subpart F's emphasis on passive income and income whose source can be manipulated. The exception for banking and insurance was likewise in the original 1962 legislation (though not in precisely the same form as the current version). The stated rationale for the exception was that interest, dividends, and like income were not thought to be "passive" income in the hands of banking and insurance firms.

The exceptions for banking and insurance were removed as part of the broad Tax Reform Act of 1986 (Public Law 99-514). In removing the exception (along with several others), Congress believed they enabled firms to locate income in tax haven countries that have little "substantive economic relation" to the income. As passed by Congress, the Taxpayer Relief Act of 1997 (Public Law 105-34) generally restored the exceptions with minor modifications. In making the restoration, Congress expressed concern that without them, Subpart F extended to income that was neither passive nor easily movable. However, the Act provided for only a temporary restoration, applicable to 1998. Additionally, the Joint Committee on Taxation identified the exceptions' restoration as a provision susceptible to line-item veto under the provisions of the 1996 Line-Item Veto Act because of its applicability to only a few taxpaying entities, and President Clinton subsequently vetoed the exceptions' restoration. The Supreme Court, however, ruled the line-item veto to be unconstitutional, thus making the temporary restoration effective for 1998, as enacted.

The banking and insurance exceptions to Subpart F were extended with a few modifications for one year by the Tax and Trade Relief Extension Act of 1998. (The Act was part of Public Law 105-277, the omnibus budget bill passed in October, 1998.) The modifications include one generally designed to require that firms using the exceptions conduct "substantial activity" with respect to the financial service business in question and added a "nexus" requirement under which activities generating eligible income must take place within the CFC's home country. In 1999, Public Law 106-170 extended the provision through 2001. In 2002, Public Law 107-147 extended the provision for five additional years, through 2006. The American Jobs Creation Act of 2004 (P.L. 108-357) added rules permitting, in some circumstances, certain qualifying activities to be undertaken by related entities. TIPRA (P.L. 109-222) extended the provision for two years, through

2008, and the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the provision through the end of 2009. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act (P.L. 111-312) extended the provision through 2011. The provision may or may not be extended.

Assessment

Subpart F attempts to deny the benefits of tax deferral to income that is passive in nature or that is easily movable. It has been argued that the competitive concerns of U.S. firms are not as much an issue in such cases as they are with direct overseas investment. Such income is also thought to be easy to locate artificially in tax haven countries with low tax rates. But banks and insurance firms present an almost insoluble technical problem; the types of income generated by passive investment and income whose source is easily manipulated are also the types of income financial firms earn in the course of their active business. The choice confronting policymakers, then, is whether to establish an approximation that is fiscally conservative or one that places most emphasis on protecting active business income from Subpart F. The exceptions' repeal by the Tax Reform Act of 1986 appeared to do the former, while the recent restoration of the exceptions appears to do the latter.

It should be noted that traditional economic theory questions the merits of the deferral tax benefit itself. Its tax incentive for investment abroad generally results in an allocation of investment capital that is inefficient from the point of view of both the capital exporting country (in this case the United States) and the world economy in general. Economic theory instead recommends a policy known as "capital export neutrality" under which marginal investments face the same tax burden at home and abroad. From that vantage, then, the exceptions to Subpart F likewise impair efficiency.

Selected Bibliography

Gravelle, Jane G. Reform of U.S. International Taxation: Alternatives. Library of Congress, Congressional Research Service Report RL34115, (2010).

- . Tax Havens: International Tax Avoidance and Evasion. Library of Congress, Congressional Research Service Report R40623, (2010).
- . Moving to a Territorial Income Tax: Options and Challenges, Library of Congress, Congressional Research Service Report R42624, (2012).

Hoffman, William. "Active Financing Helps Bring GE's Tax Rate to 2.3 Percent." *Tax Notes International 65* (March 5, 20012), p. 746.

Keightley, Mark. U.S. International Corporate Taxation: Basic Concepts and Policy Issues. Library of Congress, Congressional Research Service Report R41852 (2011).

McLaughlin, Megan. "Truly a Wolf, Or Just a Sheep in Wolf's Clothing? The Active Finance Exception to Subpart F." *Virginia Tax Review* 21 (Spring 2002): 649.

Sullivan, Martin A. "Economic Analysis: Large U.S. Banks Keeping More Profits in Tax Havens." *Tax Notes* 14 (June, 2004), p. 1340.

- U.S. Congress, Joint Committee on Taxation. "Extension and Modification of Exceptions under Subpart F for Active Financing Income." In *General Explanation of Tax Legislation Enacted in the 107th Congress.* Joint Committee Print. 107th Congress, 2nd session. Washington, DC: U.S. Government Printing Office, 2003, pp. 279-283.
- U.S. Department of the Treasury, Office of Tax Policy. *The Deferral of Income Earned Through U.S. Controlled Foreign Corporations*. Washington, DC: December, 2002.

Yoder, Lowell D. "The Subpart F Exception for Active Financing Income." *Tax Management International Journal* 31 (June 14, 2002): 283-303.

AVAILABILITY OF FOREIGN TAX DEDUCTION INSTEAD OF CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.2	0.2
2012	-	0.2	0.2
2013	-	0.2	0.2
2014	-	0.3	0.3
2015	-	0.3	0.3

Authorization

Section 901.

Description

For taxes paid on income earned abroad, taxpayers may elect to either claim a deduction against taxable income or a credit against taxes due. In general, the credit is more advantageous than the deduction, because a credit reduces taxes paid on a dollar-for-dollar basis, while a deduction only reduces income subject to tax. However, in cases where the taxpayer is facing the foreign tax credit limit claiming the deduction will result in a lower tax liability.

Impact

The deduction reduces the U.S. taxes due by some taxpayers who are either unable to claim the foreign tax credit or are constrained by the foreign tax credit limit.

Rationale

The opportunity to deduct foreign taxes paid was a feature in the original 1913 tax code. One possible motivation for the deduction could have

been to recognize foreign taxes, like state taxes, as a possible cost associated with earning income. As such, the provision would help correct for mismeasurement of adjusted gross income and be justified on ability to pay or horizontal equity arguments.

Assessment

Deductibility of foreign taxes is consistent with the economic concept of national neutrality. Under this regime, foreign taxes are treated as a business expense and, thus, deductible from taxable income. This results in the foreign return net of foreign tax equaling the domestic before tax return and a nationally efficient allocation of capital. While this maximizes the income or output in the domestic market, it also alters the division of income between capital and labor, shifting income towards labor and away from capital. Because national neutrality distorts the location of investment, it produces an inefficient "deadweight" reduction in world economic welfare.

Selected Bibliography

Feldstein, Martin S., and David Hartman, "The Optimal Taxation of Foreign Source Investment Income," *Quarterly Journal of Economics* 93 (1993).

Gravelle, Jane G. Reform of U.S. International Taxation: Alternatives. Library of Congress, Congressional Research Service Report RL34115, (2010).

Keightley, Mark. U.S. International Corporate Taxation: Basic Concepts and Policy Issues, Library of Congress, Congressional Research Service Report R41852 (2011).

Rousslang. Donald J., "Foreign Tax Credit," in Joseph J. Cordes. Robert D. Ebel, and Jane G. Gravelle, eds., *The Encyclopedia of Taxation and Tax Policy* (Washington: The Urban Institute, 1999), pp.137-9.

U.S. Department of Treasury, Internal Revenue Service, *Foreign Tax Credit for Individuals*, Publication 514, (2007).

INTEREST EXPENSE ALLOCATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	-1.5	-1.5
2012	-	-1.4	-1.4
2013	-	-1.6	-1.6
2014	-	-1.7	-1.7
2015	-	-1.9	-1.9

Authorization

Section 864.

Description

The United States, in principle, taxes its resident corporations and individuals on their worldwide income, regardless of where it is earned, under the residence rule. The foreign tax credit and deferral are the key structural pieces of the U.S. taxation of foreign-source income. The foreign tax credit provisions generally permit U.S. taxpayers to credit foreign taxes they pay against U.S. taxes they would otherwise owe—on a dollar-fordollar basis. This credit is, however, limited.

In order to protect its domestic tax base, the U.S. imposes a limitation on the foreign tax credit. In effect, the tax code only allows foreign tax credits to offset the U.S. tax on foreign source-income. Any foreign taxes paid in excess of the limit become "excess credits" and can be carried back one year and carried forward up to 10 years. When a firm is in an excess credit position, the rules surrounding the sourcing of fungible sources of income, such as interest, become important.

Current law applies the fungibility principle to interest allocation in a manner sometimes referred to as "water's edge" allocation. Under this system, foreign subsidiaries are not explicitly included in the allocation. This has two implications for the allocation formula. First, only a domestic parent's equity stake in its foreign subsidiary is counted as an asset—excluding the foreign subsidiary's assets financed by debt. The parent's assets, in contrast, are all included in the calculation—whether financed by equity or debt. Secondly, the subsidiary's interest expense is automatically allocated to foreign sources. This occurs since the subsidiary's interest expense reduces dividend payments to the parent, which are all allocated to foreign source income.

Under current law, beginning in 2021, the U.S. will allocate interest expense using a "worldwide" allocation regime. Under a "worldwide" allocation, the borrowing of foreign subsidiaries would be taken into account. The switch to a "worldwide" regime was originally scheduled to take place in 2009 as a result of the American Jobs Creation Act of 2004 (P.L. 108-357). The implementation was then first delayed until 2011 by the Housing and Economic Recovery Act of 2008 (P.L. 110-289), and then until 2018 by the Worker, Homeownership, and Business Assistance Act of 2009 (P.L. 111-92), and finally to 2021 by the Hiring Incentives To Restore Employment Act (P.L. 111-147).

Current law contains a subgroup election for firms that are banks. This election allows the interest allocation rules to be applied separately to the bank and non-bank subsidiaries of a U.S. corporation. Beginning in 2021, this election is available to a wider range of financial intermediaries, including finance companies and insurance firms.

Impact

Under the water's edge interest allocation formula, foreign subsidiaries are not explicitly included in the allocation. This has two implications for the allocation formula. First, only a domestic parent's equity stake in its foreign subsidiary is counted as an asset—excluding the foreign subsidiary's assets financed by debt. The parent's assets, in contrast, are all included in the calculation—whether financed by equity or debt. Secondly, the subsidiary's interest expense is automatically allocated to foreign sources. This occurs since the subsidiary's interest expense reduces dividend payments to the parent, which are all allocated to foreign sources.

In contrast, the basic result of the worldwide interest allocation formula, if elected, is to increase the weight given to foreign assets in the allocation formula. This should in turn result in a greater proportion of the interest expense being allocated to U.S.-source income under the foreign tax credit

formula. leading to higher foreign source income and a higher foreign tax credit for firms with excess credits.

The availability of subgroup elections runs counter to the principle of fungibility that is embodied by the interest allocation rules. This result follows from the fact that firms could distribute their borrowing among related subsidiaries to minimize foreign allocations of interest. The expansion of this election beginning in 2021, under current law, could move the U.S. system further from the principle of fungibility.

Rationale

Prior to 1986, each separately incorporated entity allocated its interest expenses separately, based upon its assets. This practice allowed companies to isolate debt offshore, thus allowing U.S. related interest to offset foreign income.

The Tax Reform Act of 1986 (P.L. 99-514) modified the interest allocation rules by adopting a one-taxpayer rule to address concerns that prior law allowed affiliated corporations to reduce U.S. tax on U.S. income by borrowing money through one corporation rather than another.

The American Jobs Creation Act of 2004 (P.L. 108-357) modified the interest allocation rules significantly. The Act mandated a switch from a waters edge to a worldwide view on the fungibility starting in 2009 and created a financial institution group election. Congress enacted these changes in response to concerns that the prior view left taxpayers excessively exposed to double taxation of foreign-source income and reduced their incentive to invest in the United States. As mentioned above, the switch to a worldwide view is currently delayed to until 2021.

Assessment

Assuming debt is fungible, worldwide allocation is a more accurate method of ensuring that the U.S. foreign tax credit is used for its intended purpose: allowing the foreign tax credit to offset the full share of U.S. precredit tax that falls on foreign source income, than waters edge based rules. Absent additional rules, however, opportunities for tax planning may limit the achievement of this objective. Also, like the foreign tax credit limit itself, allocation rules tend to contribute to the distortions that discourage equity investment abroad. Worldwide interest allocation rules could, in several ways, increase these distortions relative to current law. The distortions created by current law can be viewed as a cost of collecting taxes—since

they increase U.S. revenue—but the potential increased distortion associated with worldwide rules cannot since they decrease U.S. revenue.

The subgroup election provisions in the interest allocation rules do not appear consistent with the general objective of the interest allocation rules. The subgroup election may permit firms to reduce the current domestic interest allocation costs, while achieving foreign interest allocation benefits.

Selected Bibliography

Altshuler, Rosanne and Paolo Fulghieri, "Incentive Effects of Foreign Tax Credits on Multinational Firms," *National Tax Journal*, vol. 7, no. 2, (1994), pp. 349-61.

— - and Jack Mintz, "U.S. Interest Allocation Rules: Effects and Policy," *International Taxation and Public Finance*, vol. 2, no. 1, (1995), pp. 7-35.

Collins, Julie H., and Douglas A. Shackelford, "Foreign Tax Credit Limitations and Preferred Stock Issuances." *Journal of Accounting Research* 30 (Supplement), (1993), pp.103 - 24.

Froot, Kenneth A., and James R. Hines, Jr., "Interest Allocation Rules, Financing Patterns, and the Operations of U.S. Multinationals," in *The Effects of Taxation on Multinational Corporations*, Martin Feldstein, James R. Hines, Jr., and R. Glenn Hubbard, eds., (Chicago: University of Chicago Press, 1995), pp. 277 - 307.

Gravelle, Jane G. Moving to a Territorial Income Tax: Options and Challenges, Library of Congress, Congressional Research Service Report R42624, (2012).

Gravelle, Jane G. and Donald J. Marples, *The Foreign Tax Credit's Interest Allocation Rules*, Library of Congress, Congressional Research Service Report RL34494. Washington, D.C., 2010.

Sullivan, Martin A. "The Effects of Interest Allocation Rules in a Territorial System." *Tax Notes* 136 (September 3, 2012). p. 1098.

- . "An Automatic Brake on Profit Shifting in a Territorial System." *Tax Notes* 476 (July 30, 2012), p. 746.
- U.S. Congress, Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in the 108th Congress, JCS-5-05, (Washington: GPO, 2005).

SPECIAL RULE FOR INTEREST CHARGE DOMESTIC INTERNATIONAL SALES CORPORATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.6	0.6
2012	-	0.6	0.6
2013	-	0.4	0.4
2014	-	0.1	0.1
2015	-	0.1	0.1

Authorization

Sections 991-997.

Description

An Interest Charge Domestic Sales Corporations (IC-DISC) is a domestic corporation, usually formed by parent shareholders (e.g., corporations, individuals, and trusts) to be a tax-exempt subsidiary, which exports U.S. products. The parent company pays the IC-DISC a tax deductible commission attributable to qualified export sales. Because the IC-DISC pays no tax, distributions (actual or "deemed") to IC-DISC shareholders are taxed only once, often at the lower individual dividend and capital gains tax rates. As a result, the after tax return to shareholders is enhanced.

IC-DISC shareholders may defer up to \$10 million that is attributable to qualified export sales. An interest charge is imposed on shareholders, however, based on the distribution that would have occurred had deferral not been elected. The \$10 million deferral restriction was intended to limit the benefit of IC-DISC activity to smaller businesses.

Impact

IC-DISC reduces the effective tax rate on export income. The benefit therefore accrues to the owners of export firms as well as IC-DISC shareholders.

The budgetary impact IC-DISC is relatively small when compared to recent and existing export subsidies. For example, the revenue loss in 2010 from the inventory property sales source rule exception is estimated at \$7.2 billion, compared to an estimated \$0.5 billion loss stemming from IC-DISC. In 2006, the exclusion of extraterritorial income (ETI) provision, which has been repealed, resulted in an estimated \$4.0 billion revenue loss.

Rationale

IC-DISC was intended to increase U.S. exports and provide an incentive for U.S. firms to operate domestically rather than abroad. Additionally, IC-DISC (and DISC in general) was adopted as a way to partially offset export subsidies offered by foreign countries.

The provision allowing the formation of Domestic International Sales Corporations (DISCs) was enacted as part of the Revenue Act of 1971. Shortly after enactment, several European countries argued that the DISC provision violated the General Agreement of Tariffs and Trade (GATT) by allowing unlimited tax deferral. A GATT panel concluded that DISC was a prohibited export subsidy. The United States never formally recognized the illegality of DISC.

In response to the GATT panel ruling on DISC, the Tax Reform Act of 1986 enacted a provision allowing for the creation of Interest Charge Domestic International Sales Corporations (IC-DISC) and Foreign Sales Corporations (FSC). A FSC was similar to a DISC in that exporters were required to establish a specially qualified subsidiary corporation to which they sold their products. Unlike DISC, FSC was designed to provide a GATT compliant export benefit by classifying FSC income as foreign-source income not connected with US trade or business, effectively exempting it from U.S. income tax. Although FSCs were foreign-chartered corporations they were allowed a 100 percent dividends-received deduction, as well as having their income exempted from Subpart F's anti-deferral rules.

In early 2000, the WTO Appellate Body confirmed an earlier ruling that FSC were a prohibited export subsidy. As a result, the FSC provision was repealed and a provision excluding extraterritorial income (ETI) was

included in the FSC Repeal and Extraterritorial Income Exclusion Act of 2000 enacted later in the year. The ETI provision provided US exporters with a similar tax benefit offered by FSC, while no longer requiring the FSC foreign management requirement. The benefit, however, was based on "extraterritorial income," and therefore not based solely on exports, making the ETI provision WTO compliant.87

Amid complaints from the European Union and another finding that the ETI provision violated WTO rule, the ETI provision was repealed by the American Jobs Creation Act of 2004. A year earlier, the Jobs and Growth Tax Relief Reconciliation Act of 2003 had cut taxes on dividend and capital gains, re-establishing the attractiveness of IC-DISC, which had been introduced nearly two decades earlier.

Assessment

IC-DISC is a tax incentive that is intended to increase U.S. exports and discourage U.S. corporations from establishing subsidiaries in foreign countries. Proponents argue that IC-DISC stimulates exports and job creation. Economic theory suggests a less optimistic view. With flexible exchange rates, an increase in U.S. exports resulting from IC-DISC likely causes an appreciation of the U.S. dollar relative to foreign currencies. In response, U.S. citizens could be expected to increase their consumption of imported goods, possibly at the expense of domestically produced substitutes. As a result, no improvement in the balance of trade occurs and domestic employment could decrease.

Economic theory also highlights the inefficiencies that IC-DISC may introduce into the allocation of productive economic resources within the U.S. economy, as only domestic exporters may benefit from the subsidy. Additionally, because the tax benefit is related to the production of exported goods and services, domestic consumers receive no direct consumption benefit. Foreign consumers, on the other hand, benefit from lower priced goods.

Selected Bibliography

Belmonte, Cynthia, "Interest-Charge Domestic Sales Corporations, 2000," Internal Revenue Service. SOI Bulletin, Spring 2004.

Brumbaugh, David L. A History of Extraterritorial Income (ETI) and Foreign Sales Corporation (FSC) Export Tax-Benefit Controversy. Library of Congress, Congressional Research Service Report RL31660. September 22, 2006.

— DISC: Effects, Issues, and Proposed Replacements. Library of Congress, Congressional Research Service Report 83-69. April 5, 1983.

Gravelle, Jane, Kent Hughes, and Warren E. Farb. *The Domestic International Sales Corporation (DISC) and its Effect on U.S. Foreign Trade and Employment.* Library of Congress, Congressional Research Service Report 76-92. May 4, 1976.

U.S. Congress, Joint Committee on Taxation. "Foreign Sales Corporations." in *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*. Committee Print, 98th Congress, 2nd Session. Washington, DC: Government Printing Office (1984), pp. 1037-1070.

TAXATION OF REAL PROPERTY GAINS OF FOREIGN PERSONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	444	-	
2012	-	-	-
2013	_	-	-
2014	-	-	-
2015	-	-	-

Note: This provision was included in a 2008 tax expenditure list with a negative tax expenditure of less than \$50 million, but was not included in the 2010 or 2012 lists.

Authorization

Sections 897, 1445, 6039C, and 6652

Description

The Foreign Investment in Real Property Tax Act of 1980 (FIRPTA) explicitly classifies the disposition of a U.S. real property interest as effectively connected with U.S. trade or business. Therefore, the net capital gain or loss from the disposition of US real property by a foreigner is subject to U.S. personal and/or corporate income taxes. U.S. real property interests include parcels of real property as well as certain shares in U.S. real property holding corporations.

FIRPTA also requires income tax withholding for the disposition of a U.S. real property interest by a foreign person. The withholding is a deposit towards expected taxes arising from the sale of U.S. real property. In general, the purchaser is responsible for withholding equal to 10 percent of the purchase price of the property. The 10 percent withholding is then paid to the Internal Revenue Service. Some foreign entities, for example, partnerships,

trusts, and estates, may be subject to a higher withholding. Failure to withhold the tax may result in the purchaser being liable for the tax.

A number of exemptions from the withholding requirement exist. The most common applies to U.S. buyers that purchase a principal residence with a sales price of less than \$300,000.

Impact

FIRPTA effectively classifies realized real U.S. property appreciation as connected with U.S. business or trade. As a result, real property investment by foreigners is taxed. While the statutory tax incidence (burden) falls on the seller of the property, where the actual incidence of the tax falls will depend on the relative price elasticity of sellers and buyers. If buyers are less responsive to changes in the price of property, sellers may be able to raise prices to compensate for the tax. As a result, the actual burden of the tax will be split between buyers and sellers.

The quantitative impact on the budget of taxing the disposition of U.S. real property by foreigners appears to be small, as indicated by the estimated negative tax expenditures listed in the table above.

Rationale

Prior to the enactment of FIRPTA, foreign investors had used several methods to avoid taxation on the sale of appreciated U.S. real property. FIRPTA was enacted to prevent tax-free dispositions of U.S. real property by foreign investors. By treating real property interests as effectively involved in U.S. trade or business, FIRPTA taxes the capital gain realized by a foreign investor upon sale of U.S. real property. FIRPTA also prevents tax-free disposition through investment in a corporation with sufficient U.S. real property interests.

Assessment

The requirement under FIRPTA that foreign and domestic investors in U.S. property are subject to the same tax treatment increases equity between taxpayers. As a result, the preferential tax treatment provided to foreign investors prior to the enactment of FIRPTA has likely been reduced. Economic theory suggests that, all else equal, the increased tax discourages investment in U.S. real property by foreigners.

The FIRPTA tax withholding requirement reduces the ability of foreign investors to avoid paying taxes on the sale of appreciated U.S. property. The required withholding amounts to a deposit on the expected tax liability. Prior to the passage of FIRPTA it was possible for foreign investors to avoid paying taxes through U.S. tax treaties, nonrecognition provisions, or by structuring investments through corporations.

Selected Bibliography

Brown, Fred B. "Wither FIRPTA?" Tax Lawyer, vol. 57, no. 2, Winter 2004, pp. 295-342.

Sakai, Marcia and James Mak. "Taxation of Foreign Real Property Investments in The U.S.: A State Perspective," University of Hawaii at Manoa, Working paper, no. 90-30, 1990.

U.S. Congress, Joint Committee on Taxation. Description of Selected Federal Tax Provisions that Impact Land Use, Conservation, and Preservation. JCX-68-99, Washington, DC, September 28, 1999.

TONNAGE TAX

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.1	0.1
2012	-	0.1	0.1
2013	-	0.1	0.1
2014	-	0.1	0.1
2015	-	0.1	0.1

Authorization

Sections 1352-1359.

Description

All domestic corporations in the United States are subject to tax on their worldwide income. To limit the extent of double taxation, U.S. firms with foreign-source income are allowed a credit against foreign paid taxes. The U.S. also only taxes foreign corporate income sufficiently connected to trade or business in the U.S. Such foreign corporate income is subject to the same tax as domestic corporate income.

Corporations involved in shipping trade and business operations may, as an alternative to the conventional corporate income tax, elect to pay the "tonnage tax". The tonnage tax is a tax on a notional shipping income (rather than on corporate income); the tax rate is equal to the highest corporate income tax rate, which is currently 35 percent. Notional shipping income is calculated as daily notional shipping income multiplied by the number of days a vessel operates in U.S. foreign trade. Daily notional income is \$0.40 per 100 tons of a ship's weight up to 25,000 net tons, and then \$0.20 per 100 tons in excess of 25,000 tons. Corporations electing to pay the tonnage tax are allowed no deductions against notional shipping income, and no credits against tonnage taxes paid.

Impact

For corporations electing to pay the tonnage tax, the expected tax burden is smaller than under the conventional corporate income tax. The expected tax burden is reduced because taxes are no longer directly tied to profitability, but rather to a ship's fixed tonnage. Thus, as profitability increases taxes remain constant.

While the expected tax burden is reduced under the tonnage tax, the actual tax burden may not be. Corporations that suffer losses or that are less profitable than expected may end up paying a tonnage tax that is higher than they would have under the corporate income tax. Again, this is because the tonnage tax is not directly related to profitability.

The direct benefit of a higher after tax return to investment accrues to the owners and shareholders of domestic shipping operators involved in U.S. foreign trade. Owners and shareholders also benefit from increased certainty and clarity with respect to a company's future tax liabilities. U.S. consumers also benefit indirectly in the form of lower priced traded goods. The estimated revenue losses reported in the table above indicate a relatively small budgetary impact from this provision.

Finally, because notional shipping income per ton decreases above the 25,000 ton threshold, the tonnage tax is more beneficial to larger vessels.

Rationale

Enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357), the tonnage tax was intended to provide relief to U.S. based shipping operators competing with foreign shipping operators registered in countries with tonnage tax regimes. Examples of other countries offering a tonnage based corporate tax include: Belgium, China, Greece, India, Ireland, and the United Kingdom. Proponents of the provision believed U.S. shippers to be at a disadvantage without a comparable tax subsidy. Aside from several small technical changes made by the Gulf Opportunity Zone Act of 2005 (P.L. 109-135), the tonnage tax as enacted remains unchanged.

Assessment

The tonnage tax is intended to assist U.S. based shipping operators by reducing the effective U.S. corporate tax to that found in other countries. By reducing the effective tax rate, economic theory predicts a positive effect on the number of vessels that register within the U.S. In addition, any

investment in new vessels that occurs should be expected to also increase the number of U.S. registered ships.

With respect to the tonnage tax's effect on employment, Section 46 of the United States Code (pertaining to manning requirements) generally requires the officers of U.S. registered ships and most other crew members to be U.S. citizens. Therefore, any increase in the number of U.S. registered vessels that is the result of the tonnage tax could have a positive effect on employment among corporations involved in shipping trade and business. The net effect on aggregate employment within the U.S. economy, however, will be determined by the amount to which the increase in shipping trade and business employment represents new job creation.

Selected Bibliography

Brownrigg, Mark, Geoff Dawe, Mike Mann, and Phillip Weston. "Developments in UK Shipping: The Tonnage Tax." *Maritime Policy and Management*, v. 28, no. 3, 2001, pp. 213-223.

Marples, Donald. U.S. Taxation of Overseas Investment and Income: Background and Issues. Library of Congress, Congressional Research Service Report RL32749. May 21, 2008.

U.S. Congress, Conference Committees, *American Jobs Creation Act of 2004*, conference report to accompany H.R. 4520, 108th Cong. 2nd sess. H.Rept. 108-755 (Washington: GPO, 2004).

Selkou, Evangela, and Michael Roe. "UK Tonnage Tax: Subsidy or Special Case?," *Maritime Policy and Management*, v. 29, no. 4, 2002, pp. 393-404.

General Science, Space, and Technology

EXPENSING OF RESEARCH AND EXPERIMENTAL EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	4.1	4.2
2012	0.1	3.9	4.0
2013	0.1	4.9	5.0
2014	0.1	6.0	6.1
2015	0.1	6.9	7.0

Authorization

Sections 174 and 59(e).

Description

As a general rule, the cost of a business asset with a useful life longer than a year, such as a machine tool or an aircraft, must be capitalized. This means the cost may be recovered through taking allowable depreciation deductions or abandoning or selling the asset.

But there are a few exceptions to this rule. One can be found in section 174(a), which gives C corporations investing in research and development (R&D) two options for recovering a significant portion of the expenses they incur or pay in undertaking those investments. One, which is spelled out in section 174(a), is to deduct as a current (not capital) expense qualifying research expenditures for new and ongoing projects. What makes this treatment both unusual and beneficial to the taxpayer is that such expenditures generally contribute to the development of tangible and intangible assets with useful lives that extend beyond a year. The second option, which resides in section 174(b), makes it possible for corporations to treat qualifying research expenditures as deferred expenses and amortize

them over 60 or more months, beginning in the month when a company first realizes benefits from the expenditures. A C corporation is deemed to realize such benefits when an asset it owns that was derived from its R&D investment begins to earn income or reduce operating expenses. Any deduction made under section 174(a) or 174(b) must be reasonable in amount.

Section 59(e) provides another exception to the general rule regarding cost recovery for depreciable assets. Basically, it allows a company to amortize eligible research expenses over 10 years, starting with the tax year in which they are paid or incurred. Unlike the two options from section 174, this option may be used by all companies, regardless of how they are organized for tax and legal purposes.

If a taxpayer does not account for qualified research expenditures using one of these options, then they must be capitalized. If the assets linked to the expenditures have no determinable useful life, then the expenditures cannot be recovered through depreciation. In this case, the company incurring the research expenses may recover them only through abandoning or selling the assets.

The depreciation of eligible research expenditures differs somewhat for businesses organized as some kind of passthrough entity (e.g., partnerships and S corporations). Although C corporations may deduct such expenses under section 174(a) for both the regular income tax and the alternative minimum tax (AMT), passthrough entities (including the self-employed) are allowed to deduct the expenses for the regular tax, but may do so for the AMT only if they "materially" (or directly) participate in the research activities. Without such participation, the expenses must be capitalized and amortized over 10 years under the AMT. One option available to passthrough entities subject to this AMT requirement is to amortize rather than deduct eligible research expenditures under the regular tax. The section 59(e) election is made separately by each partner in a partnership, or each shareholder in an S corporation, according to the partner's or shareholder's allocable shares of those expenditures.

Treasury regulations define expenditures that qualify for the section 174 deduction as "research and development costs in the experimental or laboratory sense." These costs include those related to "the development of an experimental or pilot model, a plant process, a product, a formula, an invention, or similar property, and the improvement of already existing property." In addition, qualified expenditures have to be related to activities

intended to discover information that eliminates uncertainty in the development or improvement of a process or product.

Not all the costs associated with research projects may be deducted under section 174. Most notably, expenditures for the acquisition (or improvement) of land and depreciable (or depletable) property used in connection with research do not qualify. As a result, outlays for structures and equipment used in R&D cannot be expensed, but they may be recovered over 15 years and 3 years, respectively, using the appropriate depreciation schedules in section 167. And no expenditures to determine the existence, location, extent, or quality of mineral deposits, including oil and gas, may be deducted under section 174.

To prevent business taxpayers from gaining a double tax benefit from the same research expenditures, companies claiming both the section 174 deduction and the research tax credit under section 41 must reduce the amount deducted by the amount of the credit. Most expenditures that qualify for one also qualify for the other. Companies in this position do have the option of taking a section 41 credit that is 35% smaller than the credit they could claim instead of lowering the deduction by the amount of the credit.

Impact

The expensing of R&D costs under section 174 has the effect of deferring taxes on the returns to business R&D investments. For the most part, the returns come in the form of cost savings or revenue from the use of assets developed through those investments. Such a deferral can produce significant tax savings for eligible businesses. To illustrate this point, suppose a profitable corporation that is taxed at a marginal rate of 35% spends \$1 million in the current tax year on wages and supplies related to research eligible for the section 174 deduction. That expenditure decreases its tax liability that year by \$350,000 (0.35 x \$1 million in deductible expenses). The net tax benefit to the corporation from taking the section 174 deduction is equal to the amount by which the \$350,000 in current-year tax savings exceeds the present value of the tax savings that would arise from taking the allowable depreciation deductions over the useful life of any assets developed through the R&D spending. Those savings hinge on the length of that life and the discount rate used to convert future depreciation deductions into current dollars.

That the section 174 deduction would lead to such an outcome is not surprising. Expensing is the most accelerated form of depreciation. It can be

shown that expensing has the effect of taxing the returns to an asset at a marginal effective rate of zero. It does so by equalizing the after-tax and pretax rates of return for an investment.

The main beneficiaries of the section 174 deduction are larger manufacturing corporations engaged in developing, producing, and selling technologically advanced products. They tend to invest more in R&D as a percentage of gross revenues than most other firms.

As a business tax deduction, the benefits of expensing any capital cost are likely to accrue mainly to upper-income individuals (see discussion in the Description).

Rationale

Section 174 was enacted as part of a major revision of the Internal Revenue Code in 1954 (P.L. 83-591). The legislative history for that undertaking indicated that Congress was pursuing two related objectives in adding section 174 to the federal tax code. One was to encourage firms (especially smaller ones) to invest more in R&D than they otherwise would. The second objective was to eliminate or lessen the difficulties, delays, and uncertainties encountered by businesses seeking to write off their research expenditures under previous tax law.

Nearly 30 years passed before Congress made a change in tax law that affected the application of section 174. The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) modified the individual alternative minimum tax (AMT) to allow individuals to amortize research, mining exploration and development, and magazine circulation expenses over 10 years in computing their alternative minimum taxable income. This change remains in effect. Individuals who choose this option do not have to treat their research expenditures as a preference item for the AMT.

Congress has made one other change in section 174. The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) clarified the requirement that deductions of research expenditures under section 174 should be reasonable in amount. Under the act, such expenditures became subject to the same requirement for reasonableness that then applied to salaries and other compensation under section 162(a)(1). By applying that standard, Congress was intending to prevent taxpayers from re-classifying dividends, gifts, loans, and similar payments as qualified research expenditures for tax purposes.

Assessment

There appears to be widespread agreement that the benefits of the section 174 deduction benefits outweigh its costs. The provision simplifies tax compliance and accounting for business taxpayers, mainly by eliminating or reducing the recordkeeping required to identify qualified R&D expenditures, link them to specific sources of revenue, and determine the useful lives of assets developed through the expenditures. In addition, the provision presumably spurs more business R&D investment than otherwise would occur by boosting after-tax returns to such investment and increasing the cash flow of firms taking the section 174 deduction. This benefit addresses a perennial concern among lawmakers and policy analysts that firms in general invest too little in R&D when left to their own devices, owing to the spillover effects of R&D. A variety of economic studies have concluded that these effects are commonplace within industries and substantial in dollar amounts.

Nonetheless, while a plausible argument can be made for subsidizing business R&D investments on economic grounds, it is not clear from available evidence that a tax preference like the section 174 deduction is the most cost-effective way to do so. Critics of federal tax incentives for innovation maintain that the main flaw with section 174 is that it does not target its inventive effect at R&D investments that are likely to generate social returns that far exceed the private returns.

Selected Bibliography

Baily, Martin Neil, and Robert Z. Lawrence. "Tax Policies for Innovation and Competitiveness," Paper commissioned by the Council on Research and Technology. April 1987.

Bernstein, Jeffry I., and M. Ishaq Nadiri. "Interindustry R&D Spillovers, Rates of Return, and Production in High Tech Industries," *American Economic Review*, vol. 76, June 1988, pp. 429-434.

Congressional Budget Office. Federal Support for R&D and Innovation, April 1984.

Cordes, Joseph J. "Tax Incentives for R&D Spending: A Review of the Evidence," *Research Policy*, vol. 18, 1989, pp. 119-133.

—. "Expensing." *The Encyclopedia of Taxation and Tax Policy*. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, D.C.: Urban Institute Press, 2005. pp. 128-130.

Goldbas, Michael and Greg Alan Fairbanks. "The Final Step in Computing the R&E Credit." *Tax Adviser*, vol. 36, no. 3, March 1, 2005, p. 136.

Guenther, Gary. Research and Experimentation Tax Credit: Current Status and Selected Issues for Congress. Library of Congress, Congressional Research Service Report RL31181.

Hall, Bronwyn H. and John van Reenen. "How Effective Are Fiscal Incentives for R&D? A Review of the Evidence," working paper 7098. National Bureau of Economic Research, Cambridge, MA, April 1999.

Hardesty, David E. "Tax Treatment of Website Development Costs: Not Exactly Point and Click." *Journal of Taxation*. March 2001, pp. 140-150.

Hudson, David S. "The Tax Concept of Research or Experimentation." *Tax Lawyer*, vol. 45, Fall 1991, pp. 85-121.

Kiley, Michael T. Social and Private Rates of Return to Research and Development in Industry. Library of Congress, Congressional Research Service Report 93-770.

Landau, Ralph, and Bruce Hannay, eds. *Taxation, Technology and the U.S. Economy*. New York: Pergamon Press, 1981. See particularly George Carlson, "Tax Policy and the U.S. Economy" (a version of which was published as Office of Tax Analysis paper 45, U.S. Treasury Department, January 1981). pp. 63-86, and Joseph J. Cordes, "Tax Policies for Encouraging Innovation: A Survey," pp. 87-99.

Lee, Andrew B. "Section 174: "Just in Time" for Deducting Costs of Developing New or Improved Manufacturing Processes," *The Tax Adviser*, July 1996, p. 401.

Lenjosek, Gordon and Mario Mansour. "Why and How Governments Support R&D," *Canadian Tax Journal*, vol. 47, no. 2, pp. 242-272.

Mansfield, Edwin, et al. "Social and Private Rates of Return from Industrial Innovations." *Quarterly Journal of Economics*, vol. 41. March 1977, pp. 221-240.

McClelland, David Huston. "Deductibility of Contract Development Costs Under Section 174," *The Tax Adviser*, January 2000, p. 19.

McConaghy, Mark L. and Richard B. Raye. "Congressional Intent, Long-Standing Authorities Support Broad Reading of Section 174," *Tax Notes*, Feb. 1, 1993, pp. 639-653.

Mamureas, T., and M.J. Nadiri. "Public R&D Policies and Cost Behavior of the U.S. Manufacturing Industries," *Journal of Public Economics*, vol. 63, no. 1, pp. 57-83.

Oliver, Joseph R. "Accounting and Tax Treatment of R&D: An Update," *The CPA Journal*, July 2003.

Rashin, Michael. D. Practical Guide to Research and Development Tax Incentives: Federal, State, and Foreign. CCH, Inc. Chicago: 2007, pp. 61-97.

Tobin, Brian F. "New Regulations Clarify R&E Definition," *The Tax Adviser*, May 1995, p. 287.

- U.S. Congress, Joint Committee on Taxation. *Tax Incentives for Research, Experimentation, and Innovation*. JCX-45-11. Washington, September 16, 2011, pp. 2-3.
- U.S. Government Accountability Office. *The Research Tax Credit's Design and Administration Can Be Improved*. Publication GAO-10-136. Washington, 2009.

General Science, Space, and Technology

TAX CREDIT FOR INCREASING RESEARCH EXPENDITURES; THERAPEUTIC RESEARCH CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	5.8	5.9
2012	0.1	4.6	4.7
2013	0.1	3.4	3.5
2014	0.1	2.6	2.7
2015	0.1	2.0	2.1

Note: \$0.1 billion of the cost in each category and each year is for the therapeutic research credit.

Authorization

Sections 41 and 48D.

Description

Under section 41, companies may claim a non-refundable tax credit for qualified research expenditures (QREs) paid or incurred in connection with their trade or business. Though often thought of as a single credit, the research credit actually comprises four discrete credits: an incremental regular credit, an alternative simplified incremental credit (ASC), a credit for contract university basic research, and a credit for contract energy research. Provided it qualifies for all four, a company may claim either the first or the second credit (but not both) and each of the other two credits. The four credits expired at the end of 2011, but there is broad bipartisan support in the 112th Congress for extending some or all of them, either temporarily or permanently.

The regular credit is equal to 20% of a company's current-year QREs above a base amount. This amount depends in part on whether the company can be regarded as an established or a startup firm under the rules governing

the use of the credit. An established firm is defined as a firm with both taxable income and QREs in at least three of the four tax years between 1984 and 1988, while a startup firm is defined as any firm whose first year with taxable income and QREs occurred after 1983. The base amount for an established firm is the product of its "fixed-base percentage (FBP)"and its average annual gross receipts in the past four tax years. In general, an established firm's FBP is the ratio of its cumulative research expenditures to its cumulative gross receipts in its base period. Its base amount cannot be less than 50% of the firm's current-year QREs, nor can its FBP exceed 16%. Startup firms are assigned an FBP of three percent during their first five tax years with both gross receipts and QREs. After that, their FBPs gradually change according to a formula laid out in section 41(c)(3)(B)(ii). By a startup firm's 11th tax year with both taxable income and research expenses, its FBP should reflect the ratio of its total QREs to total gross receipts over five of the previous six tax years chosen by the firm.

From 1997 through 2008, companies had the option of claiming what was known as the alternative incremental research credit (ARC) instead of the regular credit. When it was discontinued starting in 2009, the ARC was equal to the sum of 3 percent of a firm's QREs above 1 percent but below 1.5% of its average gross receipts in the four previous years, 4% of its QREs above 1.5% but below 2.0% of the same receipts, and 5%of its QREs above 2.0% of the same receipts. A provision of the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) suspended the ARC, and Congress has shown no interest in reinstating it, heeding industry complaints that it was too complicated to calculate and had too small an incentive effect. When the ARC was available, companies generally were likely to benefit more from it than from the regular credit when their current-year QREs were only slightly larger than their base amounts for the regular credit.

Under current law, companies have the option of claiming the ASC rather than the regular credit. The ASC is equal to 14% of QREs above 50% of a company's average annual QREs in the previous three tax years. If a company has no QREs in at least one of those years, it may claim an ASC equal to 6% of its current-year QREs. Companies electing to use the ASC cannot switch to the regular credit without the permission of the IRS.

Payments for basic research conducted by universities and certain non-profit scientific research organizations under a written contract are eligible for basic research tax credit under section 41(e). The credit is equal to 20% of those payments above a company's "qualified organization base period

amount (QOBPA)." For calendar-year taxpayers, the base period is 1981 to 1983, or the three years preceding a firm's first tax year if it began to operate after 1983. A company's QOBPA is equal to the sum of its "basic research amount" and its "maintenance-of-effort amount." The former is the greater of (1) the amount of basic research payments treated as contract research during the company's base period, or (2) one percent of its in-house and contract research spending in that period; the latter is equal to a company's average annual "non-designated" university contributions during its base period, adjusted for inflation, less the amount of the company's non-designated university contributions in the current tax year. If the company's total current-year contributions are less than its annual average contributions during its base period, the company's QOBPA increases by the amount of the difference. Contract research expenditures above its QOBPA may not also be taken into account when computing the company's regular credit or ASC, but expenditures below that amount may be used for that purpose.

Companies may also claim a 20% credit for the entire amount of their contributions or payments for contract research to energy research consortia under section 41(a)(3). The research must be related to a company's trade or business. But a company claiming the credit does not have to prove to the Internal Revenue Service (IRS) that the consortium receiving its qualifying payments is engaged in qualified research or paid or incurred QREs in conducting it. Any amounts used to compute the energy research credit may not also be used to compute the regular credit, ASC. or basic research credit. But if a payment for energy research does not meet the requirements for the energy research credit, it may be treated as a contract research payment for the purpose of computing any of those credits, provided it qualifies.

The definition of qualified research has been a contentious issue for companies and the IRS since the credit first became available in July 1981. As it now stands, research must satisfy three criteria in order to qualify for the credit. First, the research must involve activities whose costs can be expensed under section 174; this means that the research must be "experimental" in the laboratory sense. Second, the research must be done for the purpose of discovering information that is "technological in nature" and useful in the development of a new or improved product, process, computer software technique, formula, or invention that is to be sold, leased, licensed, or used by the firm performing or paying for the research. Finally, the research must entail a process of experimentation whose goal is the development of a product or process with a "new or improved function, performance, or reliability or quality."

Furthermore, not all spending on qualified research qualifies for the regular credit or ASC. Specifically, expenditures for the following purposes only may be used to compute either credit:

- (1) wages and salaries of employees directly involved in performing the research.
 - (2) supplies used in qualified research conducted in house;
 - (3) time-sharing costs for computers used in such research; and
- (4) 65% of amounts paid by a company for qualified research conducted by an eligible organization under a written contract; 75% of payments for qualified research done by not-for-profit scientific research consortia; or the full amount of payments for qualified research performed by eligible small firms, certain universities, or federal laboratories.

Neither the regular credit nor the ASC applies to expenditures for equipment and structures used in qualified research, the fringe benefits of employees involved in the research, and overhead costs related to research activities (e.g., rent, utility costs, leasing fees, administrative and insurance costs, and property taxes). According to one estimate, outlays for equipment and structures represent 30% of the total direct cost of business R&D investments. Nor can the regular credit or ASC be claimed for costs related to research done after the start of commercial production; research aimed at adapting existing products to a specific customer's needs; research intended to duplicate existing products; surveys; routine testing; research to modify standardized computer software for a company's internal use; foreign qualified research; qualified research funded by others; and any research in the social sciences, arts, or humanities.

If a taxpayer claims both the research tax credit and the deduction for research expenditures under section 174, the deduction must be reduced by the amount of the credit. This rule is intended to keep companies from receiving two tax benefits for the same QREs.

In addition, the research credit as a whole is a component of the general business credit (GBC) under section 38 and thus subject to the limitations on its use. The amount of the GBC a company may take in a tax year is limited to the excess (if any) of its net income tax over the greater of its tentative minimum tax for the year or 25% of the company's net regular tax liability over \$25,000. A taxpayer's net income tax is defined as the sum of its regular tax liability and alternative minimum tax (AMT) liability, less non-

refundable personal tax credits it may take; the taxpayer's net regular tax liability denotes its regular tax liability reduced by the same credits. As a result, a company cannot claim the GBC in a tax year when it has to pay the AMT because its tentative minimum tax will always exceed its net income tax. Even when a company is subject to the regular income tax, it may claim a GBC no larger than the excess of its regular tax liability over its tentative minimum tax liability. Any GBC that cannot be used in the current tax year may be carried forward 20 years or back one year. Companies that cannot use their current-year GBCs after 20 years may deduct the full amount of the unused credits in the following tax year.

The section 41 credit has been continuously available since July 1981, with the exception of the 12 months from July 1, 1995 and June 30, 1996. While the credit has been extended 14 times (as of October 2012) since its enactment, none of the extensions has retroactively included that period.

Under section 48D, which was established by the Patient Protection and Affordable Care Act of 2010 (PPACA, P.L. 111-148), eligible companies were allowed to take either a 50% non-refundable tax credit or a tax-exempt cash grant of equivalent value, within certain limits, for expenses they incurred in 2009 and 2010 for investments in so-called qualifying therapeutic discovery projects (QTDPs). To qualify for the subsidy, a company could have no more than 250 full-time and part-time employees combined when it applied for the credit or grant. A total of \$1 billion was set aside for the program. No company was allowed to receive more \$5 million in credits or grants during those years.

Impact

The section 41 regular credit and ASC are intended to lower the aftertax (or net) cost to a business of performing more qualified research than it otherwise would. Though the statutory rate of the regular credit is 20% for QREs above the base amount, its marginal effective rate (MER) is lower, considerably so in some cases. This is a result of the rules governing the use of the two credits.

One rule requires that any deduction taken for research expenditures under section 174 be reduced by the amount of the credit. The reduction lowers the credit's MER for an additional dollar of QREs above the base amount from 20% to 13%: [0.20 x (1-0.35)].

Another rule stipulates that a firm's base amount for the credit cannot be less than 50% of its current-year QREs. As a result, the MER drops to 6.5% for current-year QREs greater than double of the base amount. For instance, if a company has a base amount for the current tax year of \$50 million and it incurs \$150 million in QREs, the credit it could claim would be equal to 20% of \$75 million, not 20% of \$100 million. This is because the base amount cannot be less than 50% of \$150 million, or \$75 million. In this case, half of the company's current-year spending on qualified research over \$100 million, or \$25 million, is added to the base amount and thus not subject to the credit. Half of 13% yields an MER of 6.5% for QREs over \$100 million.

As noted earlier, business R&D investments can and do include expenses that do not qualify for the credit, such as purchases of structures and equipment used exclusively for R&D. Consequently, it can be argued that the credit's MER is reduced further when outlays for structures and equipment make up part of the cost of a qualified research project. For example, if structures and equipment account for half of the total cost of a company's investment in qualified research, only 50% of those expenditures would qualify for the credit. This means that the MER for the credit would be half of what it otherwise would be for the company's QREs above its base amount, all other things being equal.

Yet another rule diminishing the research credit's MER is the limitation on its use imposed by the GBC. The research credit is one of more than 35 credits making up the GBC. Research credits that cannot be used in the current tax year because of the limitation may be carried back one year or forward up to 20 years. Current-year credits carried forward become less valuable in current dollars over time. A decline in their present value reduces their MER. The size of the reduction hinges on the number of years that elapse before the credits are used, as well as the company's discount rate over that period.

As these considerations may suggest, the regular credit and ASC have not benefited all firms undertaking qualified research equally. For example, the regular credit is of no benefit to firms whose current research intensity (i.e., research expenditures as a share of gross receipts) is smaller than their research intensity during their base periods. If the decline in research intensity is due to faster growth in sales rather than slower growth in research expenditures, the credit could act as an implicit tax on sales growth.

Nevertheless, in an indication that the regular credit and ASC are serving their intended purpose, despite the unequal and arbitrary outcomes each can yield, they have provided the largest subsidies to firms whose R&D investments have been rising faster than their sales revenues.

Individuals to whom the credits are properly allocated as owners of partnerships or subchapter S corporations may use the credit for one purpose only: to offset any tax on their incomes attributable to that business. In other words, owners of partnerships or S corporations cannot use research tax credits allocated to them to offset the tax on income from other sources.

Most of the benefits of the regular credit and the ASC go to large C corporations in manufacturing. In 2009, for instance, manufacturing accounted for 69% of the total amount of claims for the overall credit, and corporations with \$250 million or more in business receipts were responsible for 82% of that amount.

On the reasonable assumption that individuals and not corporations ultimately bear the burden of an income tax, the direct benefits of the research tax credit accrue largely to higher-income individuals (see the discussion in the Description).

The section 48D credit (or cash grant) for qualified therapeutic discovery projects (QTDPs) was intended to spur greater U.S. investment in 2009 and 2010 by small and medium-sized biotech companies in projects aimed at developing breakthrough medical therapies. It did so by reducing the net or after-tax cost of conducting the tests and clinical trials needed to secure approval by the U.S. Food and Drug Administration for new medicines, molecular diagnostic tools, and methods of delivering the new therapies to patients. Within the financial constraints of the program, the credit or grant covered 50% of the estimated cost of qualified projects for companies certified to participate.

The certification process involved a two-stage review of each application submitted by eligible companies. An application covered a single project only; so a company could submit more than one application if it was investing in more than one project. In the first stage, the Department of Health and Human Services (HHS) had to determine if a project qualified for the subsidy and demonstrated a significant potential to promote the development of new therapies, reduce long-term U.S. health care costs, or advance the goal of curing cancer within 30 years of May 21, 2010, the day the IRS outlined the application process by releasing IRS Notice 2010-45.

Once a project gained the approval of HHS, the IRS then determined if it had a significant potential to create and sustain high-paying jobs in the United States and promote the competitiveness of U.S. companies in the fields of life, biological, and medical sciences.

The IRS began accepting applications on June 18, 2009; to be considered, an application had to be postmarked by July 21. It received 5,663 applications requesting a total of \$10.5 billion in credits and grants, or \$1.85 million per application. The winners were announced on November 3. A total of 2,923 applicants specializing in biotechnology and medical research were awarded \$1 billion in subsidies.

Rationale

The research tax credit has never been a permanent part of the federal tax code. In fact, as of November 2012, it had been extended 14 times and significantly modified five times.

Section 41 entered the federal tax code through the Economic Recovery Tax Act of 1981. Under the act, the regular credit's statutory rate was set at 25%, there was no basis adjustment, and the base amount was equal to a company's average research expenditures in the previous three tax years. Such a design served two purposes: (1) to give U.S.-based firms a robust incentive to invest more in R&D than they otherwise would, and (2) to offset some of the costs associated with initiating or expanding business R&D programs.

The original credit was supposed to expire at the end of 1985 to give Congress enough time to evaluate its effectiveness before deciding whether or not to extend it. Congress extended the credit through 1988, at a reduced rate of 20%, through the Tax Reform Act of 1986. The Technical and Miscellaneous Revenue Act of 1988 extended the credit for another year and a half and added a basis adjustment equal to 50% of the amount of the credit.

Additional changes were made in the credit through the Omnibus Reconciliation Act of 1989. Specifically, the act extended the credit through 1990; allowed the base amount to increase according to rises in gross receipts rather than research expenditures; expanded the focus of the credit so that it applied to research aimed at investigating future lines of business, not just to research intended to develop current ones; and adopted a full basis adjustment.

The Omnibus Reconciliation Act of 1990 extended the credit through the end of 1991, and the Tax Extension Act of 1991 further extended it through June 1992. After the credit expired and remained unavailable for nearly a year, the Omnibus Budget Reconciliation Act of 1993 retroactively extended it through June 30, 1995.

Congress did not renew the credit until it passed the Small Business Job Production Act of 1996, which extended it from July 1, 1996 to May 31, 1997, leaving a one-year gap in coverage that remains intact today. The act also introduced a three-tiered alternative incremental credit (ARC) and allowed 75% of payments to non-profit research consortia to qualify for the credit.

The Taxpayer Relief Act of 1997 further extended the credit through June 1998, and the omnibus budget bill passed in 1998 (P.L. 105-277) extended the credit through June 1999. After expiring yet again, the credit was extended to June 30, 2004 by the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170). In October 2004, President Bush signed into law a tax bill (the Working Families Tax Relief Act of 2004, P.L. 108-311) that included an extension of the credit through December 31, 2005.

Under the Tax Relief and Health Care Act of 2006 (P.L. 109-432), the credit was extended through 2007. The act also increased the ARC rates for 2007 and added the ASC.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) retroactively renewed the credit through 2009. It also increased the rate for the ASC to 14% and suspended the AIRC for the 2009 tax year.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the four components of the credit for two years, through 2011, and repealed the AIRC.

Congress established the therapeutic discovery project credit under section 48D through the Patient Protection and Affordable Care Act of 2010 (P.L. 111-148).

Assessment

Economists generally agree that investment in R&D contributes to longterm economic growth through the productivity-enhancing innovations it gives rise to. Data on productivity growth reported by the U.S. Bureau of Labor Statistics indicate that technological innovation was responsible for 37% of the growth in U.S. real economic output, and about half of the growth in real output per worker, from 1948 to 2001. Another study, this by the Organization of Economic Cooperation and Development, estimated that each additional \$100 of business R&D investment in 16 member nations from 1980 to 1998 led to a \$113 increase in real gross domestic product.

Nonetheless, businesses in general are unlikely to invest in R&D in amounts consistent with its social returns. This is because the private returns to R&D investments tend to be considerably smaller than the social returns. Research on the private and social returns to R&D indicates that the latter are two to four times the former. Such a sizable discrepancy reflects the external benefits (or spillovers) from R&D. Economists have identified two kinds of spillovers: knowledge spillovers and financial spillovers.

Knowledge spillovers stem from the inability of innovating companies to prevent other firms from benefiting at little or no cost from the knowhow and technical knowledge gained through R&D projects. This can be seen in the following example. When a group of research scientists and engineers leaves a successful company to form a competing company of their own, and the main objective of the new company is to develop and commercialize a new technology related to but not in violation of any patents on technologies developed by their former employer, some of the returns from investment in the new technology arguably could be attributed to R&D performed by that employer.

By contrast, a financial spillover arises when leaked knowledge from one company's R&D investment lowers the prices or improves the quality (without price increases) for goods and services used by consumers and for technologies used by other businesses. The innovating company derives no financial gain from these benefits.

The difference between the private and social returns to R&D investments constitutes a market failure in that total private R&D investment falls short of the socially optimal amount. To remedy such a failure, governments in many advanced industrial countries provide financial support for business R&D (e.g., research tax credits and direct research grants) for the purpose of lifting private-sector R&D investment to levels commensurate with its social returns. The U.S. government offers two tax incentives to stimulate increasing business R&D investment: the expensing of QREs under section 174 and an incremental credit for QREs under section 41.

Since its enactment in 1981, the research tax credit has provided over \$1 billion a year in subsidies for business R&D investment; in 2009, the most recent year for which data are available, companies filed claims for a total of \$7.8 billion in research tax credits. The credit is designed to boost this investment by giving companies an incentive to spend more on R&D than they otherwise would. This incentive comes in the form of a reduction in the after-tax (or net) cost of undertaking new qualified research projects, which lowers the cost of capital for R&D investments and increases cash flow, relative to other investments a company might make.

The current research raises a number of policy issues, one of which is worth exploring in detail here: the credit's cost-effectiveness relative to other policy options for increasing private R&D investment, such as government research grants or loan guarantees.

Most economists who have studied the first issue have taken a relatively narrow, short-term approach to assessing the credit's cost-effectiveness. A variety of data and methodological limitations associated with measuring the social returns to R&D investments have stymied attempts to come up with a broader, more inclusive estimate of the credit's costs and benefits. Basically, available studies compare the estimated revenue cost of the credit with the business R&D spending attributable to the credit in a given year. In this case, a ratio of 1.0 would indicate that one dollar of revenue cost results in a one dollar of added business R&D investment, all other things being equal. This would imply that the credit is at least as cost-effective as direct government grants in raising private R&D investment. Similarly, a ratio below 1.0 would indicate the credit is not as cost-effective as government grants or loan guarantees, and a ratio above 1.0 would have the opposite implication. The main challenge in estimating this ratio is determining the added R&D stimulated by the credit; the Joint Committee on Taxation (JCT) issues annual updates of the revenue cost of the credit, and the IRS releases annual data on the total amount of claims for the research credit.

Calculating the added R&D stimulated by the credit hinges on two considerations: (1) the sensitivity (or responsiveness) of business R&D investment to a reduction in its tax price, and (2) the credit's marginal effective rate (MER). Economists measure this sensitivity by estimating what they call the tax price elasticity for R&D investment. Basically, the elasticity indicates the extent to which business R&D investment might change in response to a given percentage change in its tax price. If the elasticity were 1.0, it would be reasonable to expect that a 10% decline or rise in that price

would be met with a 10% rise or drop in spending, all other things being equal. If the elasticity were above 1.0, then the same decline in price would result in a rise in R&D investment greater than 10%. And a tax price elasticity below 1.0 would indicate that a 10% tax price decrease would lead to a smaller increase in R&D investment. Unfortunately, there is considerable uncertainty about the actual elasticity. Studies that have examined the economic effects of the U.S. research credit have estimated short-run elasticities in the range of 0.2 to 1.6. A primary drawback to these estimates is that none was based on firm-level claims for the credit and R&D investments.

As noted earlier, the credit's MER measures the extent to which it reduces the after-tax cost of undertaking qualified research projects. This rate is determined by the rules governing the use of the credit. One such rule is the requirement that the deduction for research expenditures under section 171 must be reduced by the amount of any credit claimed. This has the effect of lowering the MER by the product of the 20% percent statutory rate and a company's top marginal tax rate. For a company taxed at a rate of 35%, the ER drops to 13%: (.20 x 1 - 0.35). Another rule that can diminish the MER is the requirement that a company's base amount for the credit cannot be less than 50% of its current-year QREs. This means that for QREs above twice the base amount, the MER drops to 6.5% (0.50 x .13). Moreover, many R&D investments include outlays for structures or equipment, which are ineligible for the credit. Yet for the companies making such investments, the cost of structures and equipment cannot be disregarded in calculating their potential after-tax returns. In fact, an estimated 30 percent of domestic business R&D spending is for expenses that are ineligible for the credit. Given that the decision to invest in a research project takes into consideration all relevant costs, it can be argued that estimates of the credit's MER ought to include the impact of these cost exclusions. In effect, they lower the rate by 30%, on average. For companies subject to the 50% minimum base amount rule, the cost exclusion rule reduces the MER to about 4.5%.

For the purpose of estimating the amount of business R&D investment stimulated by the credit, it would make sense to use the credit's weighted average MER. This is because the MER can differ from company to company, depending on the particulars of its investments in qualified research. But such an approach is not possible, owing to federal laws restricting public disclosure of taxpayer information and the absence of comparable data in company annual reports and other publications.

The next best approach is to use the credit's average effective rate (AER), which is the total amount of credit claimed in a year divided by either total QREs or total U.S. business R&D spending. Using total U.S. business R&D as estimated by the National Science Foundation (NSF), which includes expenditures for structures and equipment, the AER for the credit was 3.55 percent in 2008 and 2009 combined. This means that the credit lowered the after-tax cost of domestic business R&D expenditures in those years by 3.55%.

Assuming the effective rate of the credit is 3.5%, and the tax price elasticity of demand for R&D investments lies between 0.5 and 1.5, it can be argued the credit that the credit raises domestic business R&D investment between 1.75% and 5.25%. The median for the range is 3.5%. In 2009, domestic business R&D spending totaled \$224.920 billion, according to the NSF; 3.5 percent of that amount is \$7.872 billion. The Joint Committee on Taxation put the revenue loss from the credit that year at \$4.9 billion. These calculations suggest that the credit is at least as cost-effective as a direct government subsidy for business R&D.

Still, because the credit can be justified on economic grounds and is deemed cost-effective does not mean that it is beyond criticism or lacking in perceived flaws. The truth is that many supporters (including current lawmakers) of the credit as a policy instrument for raising business R&D investment think it should be modified to enhance its incentive effect. Critics of the credit point to several problems that are preventing it from being as effective as it could be. At the top of many of their lists is the credit's lack of permanence, which compounds the uncertainty surrounding expected returns on R&D investment in the private sector, thereby curtailing business R&D spending. Another problem, according to critics, is the perplexing complexity associated with the base amount for the regular credit and the definition and measurement of QREs; it has the effect of deterring some companies from claiming the credit and increasing the cost of administering it and compliance. Some question whether a tax subsidy is the most effective way to encourage increased investment in research that generates relatively high social returns; in their view, an open-ended subsidy like the credit is more likely to subsidize research that would be undertaken in any event than to stimulate increased business investment in basic and applied research. Others contend that the credit's MER is insufficient to boost business R&D to levels more in line with its social benefits; they favor expanding the credit's generosity by altering the rules governing its use and increasing its statutory rate. Many critics also point out that the current credit does little to support the innovative activities of small start-up companies at critical stages in their development. Since it is non-refundable, only profitable companies can make use of the credit in the same year it is claimed. Few start-up companies earn profits in their first four or five years of operation.

The section 48D credit or tax-free grant for qualifying therapeutic discovery projects (QTDPs) can be regarded as an administrative success for the IRS. By November 1, 2010, 4,606 applicants for credits or grants had been approved for a total amount of \$1 billion. Slightly more than 1,000 applications were denied. That it was oversubscribed is not surprising, since the refundable credit or grant covered 50% of the cost of certified projects.

It is too soon to evaluate the U.S. economic return on that outlay. Many of the funded projects are still underway.

Selected Bibliography

Altschuler, Rosanne. "A Dynamic Analysis of the Research and Experimentation Credit," *National Tax Journal*, v. 41. December 1988, pp. 453-466.

Atkinson, Robert D. The Research and Experimentation Tax Credit: A Critical Policy Tool for Boosting Research and Enhancing U.S. Economic Competitiveness, Information Technology and Innovation Foundation. Washington: September 4, 2006.

Baily, Martin Neil, and Robert Z. Lawrence. "Tax Policies for Innovation and Competitiveness," Paper Commissioned by the Council on Research and Technology. Washington: April 1987.

-. "Tax Incentives for R&D: What do the Data Tell Us?" Study Commissioned by the Council on Research and Technology. Washington, DC, 1992.

Berger, Philip G. "Explicit and Implicit Tax Effects of the R&D Tax Credit." *Journal of Accounting Research*, v. 3, August 1993, pp. 131-71.

Bernstein, Jeffry I. and M. Ishaq Nadiri. "Interindustry R&D Spillovers, Rates of Return, and Production in High Tech Industries," *American Economic Review*, vol. 76, June 1988, pp. 429-434.

Billings, B. Anthony and Randolph Paschke, "Would H.R. 463 Improve the Competitiveness of U.S. R&D Tax Incentives?," *Tax Notes*, June 9, 2003, pp. 1509-1524.

-. "Permanent Research Tax Credit Could Reverse Offshoring of Jobs," *Tax Notes*, March 29, 2004, pp. 1655-1666.

Brown, Kenneth M., ed. *The R&D Tax Credit. Issues in Tax Policy and Industrial Innovation*. Washington: American Enterprise Institute for Public Policy, 1984.

Busom, Isabel. An Empirical Evaluation of the Effects of R&D Subsidies. Burch Working Paper No. B99-05. Berkeley, CA, University of California, Berkeley, May 1999.

Carroll, Robert, Gerald Prante, and Robin Quek. *The R&D Credit: An Effective Policy for Promoting Research Spending*, Ernst & Young, September 2011.

Cordes, Joseph J. "Tax Incentives for R&D Spending: A Review of the Evidence," *Research Policy*, vol. 18, no. 3, 1989, pp. 119-133.

-. "Research and Experimentation Tax Credit." *The Encyclopedia of Taxation and Tax Policy*, edited by Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005. pp. 330-332.

Corrigan, Maura. "The Qualified Therapeutic Discovery Project Tax Credit and Grant," *The Tax Adviser*, August 1, 2010.

Cox, William A. Research and Experimentation Credits: Who Got How Much? Library of Congress, Congressional Research Service Report 96-505.

Cuppersmith, Adam S. "R&D Tax Incentives Around the World," *The Tax Adviser*, August 2012, pp. 498, 500-501.

Ernst & Young. Supporting Innovation and Economic Growth: the Broad Impact of the R&D Credit in 2005. April 2008.

Gravelle, Jane G. The Tax Credit for Research and Development: An Analysis. Library of Congress, Congressional Research Service Report 85-6.

Griffith, Rachel. How Important Is Business R&D for Economic Growth and Should the Government Subsidize It? Institute for Fiscal Studies, briefing note no. 12, October 2000.

Grigsby, McGee, and John Westmoreland, "The Research Tax Credit: A Temporary and Incremental Dinosaur." *Tax Notes*, December 17, 2001, pp. 1627-1640.

Guenther, Gary. Research and Experimentation Tax Credit: Current Status and Selected Issues for Congress. Library of Congress, Congressional Research Service Report No. RL31181.

Guinet, Jean, and Hroko Kamata. "Do Tax Incentives Promote Innovation?" *OECD Observer*, no. 202, October-November, 1996, pp. 22-25.

Hall, Bronwyn H. "R & D Tax Policy During the 1980s," in *Tax Policy and the Economy* No. 7, James M. Poterba, ed. Cambridge, MA: MIT Press, 1993.

- —, Effectiveness of Research and Experimentation Tax Credits: Critical Literature Review and Research Design, report prepared for the Office of Technology Assessment, June 15, 1995.
- —, and John van Reenen. How Effective Are Fiscal Incentives for R&D? A Review of the Evidence, working paper 7098. Cambridge, MA, National Bureau of Economic Research, April 1999.

Hines, James R. "On the Sensitivity of R&D to Delicate Tax Changes: The Behavior of U.S. Multinationals in the 1980s." In *Studies in*

International Taxation in the 1980s," Alberto Giovanni, R. Glenn Hubbard, and Joel Slemrod, eds. Chicago: The University of Chicago Press, 1993.

Kiley, Michael T. Social and Private Rates of Return to Research and Development in Industry. Library of Congress, Congressional Research Service Report 93-770.

KPMG. Understanding Treasury's New Guidance on the Qualifying Therapeutic Discovery Project Tax Credit and Grant, No. 2010-231, Washington: May 24, 2010.

Landau, Ralph, and Bruce Hannay, eds. *Taxation, Technology and the US. Economy*. New York: Pergamon Press, 1981. See particularly George Carlson, "Tax Policy and the U.S. Economy," pp. 63-86, and Joseph Cordes, "Tax Policies for Encouraging Innovation: A Survey," pp. 87-99.

Mamureas, Theofaris P., and M. Ishaq Nadiri. "Public R&D Policies and Cost Behavior of the U.S. Manufacturing Industries." working paper 5059. National Bureau of Economic Research, Cambridge, MA, March 1995.

Mansfield, Edwin, et al. "Social and Private Rates of Return from Industrial Innovations," *Quarterly Journal of Economics*, v. 41. March 1977, pp. 221-240.

McIntyre, Bob. Proposed Extension of Corporate Tax Credit: Throwing Good Money After Bad, Citizens for Tax Justice. Washington: May 12, 2006.

Office of Technology Assessment. *The Effectiveness of Research and Experimental Tax Credits*, OTA-BRITC-174, September 1995. See http://www.princeton.edu/~ota/disk1/1995/9558/9558.PDF.

Ohmes, Christopher J., David S. Hudson, and Monique J. Migneault. "Final Research Credit Regulations Expected to Immediately Affect IRS Examinations," *Tax Notes*, February 23, 2004, pp. 1015-1024.

Organization for Economic Cooperation and Development. *The International Experience with R&D Tax Incentives*, prepared statement for a hearing on tax reform and innovation held by the Senate Committee on Finance on September 20, 2011.

Rashkin, Michael D. Practical Guide to Research and Development Tax Incentives: Federal, State, and Foreign. Chicago: CCH, 2007.

Sadler, Alex E. and Jennifer A. Ray. "Navigating the Research Credit," *Tax Notes*, September 19, 2011, pp. 1253-1273.

Tillinger, Janet W. "An Analysis of the Effectiveness of the Research and Experimentation Tax Credit in a Q Model of Valuation." *The Journal of the American Taxation Association*, Fall 1991, pp. 1-29.

Treasury Inspector General for Tax Administration. Legislative Requirements Were Met When Awarding Credits and Grants for the Qualifying Therapeutic Discovery Project Program, Audit Report, reference no. 2011-40-100, September 14, 2011.

Tyson, Laura and Greg Linden. *The U.S. Corporate R&D Tax Credit and U.S. Innovation and Competitiveness*. Center for American Progress, January 2012.

- U.S. Congress, House Committee on Ways and Means. *Research and Experimentation Tax Credit* Hearing, 98th Congress, 2nd session. August 2, 1984.
- —, Joint Committee on Taxation. Description and Analysis of Tax Provisions Expiring in 1992. January 27, 1992: pp. 59-68.
- —, Joint Economic Committee. *The R&D Tax Credit: An Evaluation of Evidence on Its Effectiveness*, 99th Congress, 1st sess. Senate Report 99-73, August 23, 1985.
- —, Joint Economic Committee. *Tax Incentives for Research, Experimentation, and Innovation*. September 16, 2011.
- U.S. General Accounting Office. Additional Information on the Research Tax Credit. Testimony of Natwar Gandhi Before the House Ways and Means Subcommittee on Oversight. Publication GGD-95-162, Washington, 1995.
- —. Studies of the Effectiveness of the Research Tax Credit. Publication GGD-96-43. May 1996.
- —. The Research Tax Credit's Design and Administration Can Be Improved. Publication GAO-10-136. Washington: 2009.

Watson, Harry. "The 1990 R&D Tax Credit: A Uniform Tax on Inputs and a Subsidy for R&D." *National Tax Journal*, vol. 49, March 1996, pp. 93-103.

Zerbe, Dean and David Ji. "The Biotech Credit: A Great Opportunity With a Fast-Closing Window," *Practical Tax Strategies*, July 2010, pp. 28-31.

—, "Health Reform Will Set Off Biotech Tax Credit Rush," Forbes, March 26, 2010.

Energy

DEDUCTION OF EXPENDITURES ON ENERGY-EFFICIENT COMMERCIAL BUILDING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	0.1	0.2
2012	0.1	0.1	0.2
2013	0.1	0.1	0.2
2014	0.1	0.1	0.2
2015	0.1	0.1	0.2

Authorization

Section 179D.

Description

Internal Revenue Code section (IRC §) 179D provides a formula-based tax deduction for all or part of the cost of energy-efficient commercial building property (i.e., certain major energy-savings improvements made to domestic commercial buildings) placed in service after December 31, 2005 and before January 1, 2014. The maximum cost of energy-efficient commercial building property that may be deducted in any tax year is limited to the product of \$1.80 and the square footage of the building, over deductions claimed for energy efficient commercial building property in any prior tax years (Code Sec. 179D(b)). In other words, the deduction is the lesser of: (1) the cost of the energy efficient commercial building property placed in service during the tax year or (2) the product of \$1.80 and the square footage of the building, reduced by all deductions claimed with respect to the building in any prior tax years.

In order to qualify as "energy-efficient commercial building property," several criteria must be met. First, the costs must be associated with

depreciable or amortizable property that is installed in a domestic building that is within the scope of Standard 90.1-2001 of the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the Illuminating Engineering Society of North America (as in effect on April 2, 2003). Second, the property in question must be installed as part of: (1) the interior lighting system, (2) the heating, cooling, ventilation and hot water systems, or (3) the building envelope. Third, the property must be installed pursuant to a plan intended to reduce the total annual energy and power costs of the building (with respect to interior lighting, heating, cooling, ventilation and hot water supply systems) by 50 percent or more in comparison to a reference building that meets the minimum requirements of Standard 90.1-2001.

Note finally, that the basis or the depreciable cost of any property generating a deduction must be reduced by the amount deducted. Thus, depreciation may not be claimed on any amount that is deducted under the provision.

A qualified professional must certify that the property reduces the total annual energy and power costs of the building's heating, cooling, ventilation, hot water, and interior lighting systems by 50 percent or more when compared to a similar reference building that meets minimum specified energy standards described in Standard 90.1-2001, Energy Standard for Buildings Except Low-Rise Residential Buildings, of the American Society of Heating, Refrigerating, and Air Conditioning Engineers and the Illuminating Engineering Society of North America. A limited deduction of up to 60¢ per square foot is available for improvements to one of the three energy-efficient commercial building property types described above, even if the overall 50 percent energy reduction standard is not satisfied. Energy savings percentage requirements for individual systems range from 10 percent to 25 percent, depending on the type of system being installed and the date of installation.

The taxpayer must receive a certificate with respect to the property before the deduction may be claimed. The required certification, which includes a statement that the applicable energy reduction requirement has been satisfied, must be provided by a professional engineer or contractor who is unrelated to the taxpayer and has represented in writing to the taxpayer that he or she has the qualifications necessary to provide the certification. The engineer or contractor must be licensed in the jurisdiction in which the building is located. The certification must also include a

statement that field inspections conducted after the building was placed in service confirm that the building has met, or will meet, the energy-savings targets. The certification must include a list identifying the components of the interior lighting systems, heating, cooling, ventilation, and hot water systems, and building envelope installed on or in the building, the energy efficiency features of the building, and its projected annual energy costs. This list may aid in the identification of the property that qualifies for the deduction. However, the list is not required to specify the cost of the property. This information may need to be obtained separately from the contractor or a cost segregation study. The certification need not be included with the taxpayer's return but should be retained.

Qualification for the deduction for energy efficiency improvements to commercial buildings also requires calculation of energy savings attributable to the interior lighting systems, heating, cooling, ventilation, and hot water systems, and building envelope. The energy savings calculations must be made using IRS approved software that utilizes the performance rating method. The energy-efficient commercial building deduction is claimed by the person who is entitled to depreciate the property (e.g., the owner of the building or a lessee who pays for and installs the property). Also, under IRS regulations, if more than one taxpayer installs qualifying property on or in the same building, the aggregate amount of deductions claimed by all taxpayers may not exceed the limit based on square footage. In the case of a federal, state, or local government building—in which case the owners of such buildings are tax-exempt entities and cannot therefore benefit from tax incentives—the person who designs the energy efficient commercial building property may claim the deduction (IRC § 179D(d)(4)). Improvements to a tax-exempt property (other than a government building), such as a church, which is not depreciable, do not qualify for the deduction. Improvements to a residential rental building qualify for the deduction if it has four or more stories above ground level.

Impact

In general the types of commercial energy property that qualify for the deduction are part of a businesses' assets, and hence are depreciable in accordance with the guidelines established by law and regulation, which vary by type of business. Under current depreciation rules (the Modified

⁷ A list of approved software programs is located on the U.S. Department of Energy's Web Site at http://wwwl.eere.energy.gov/buildings/qualified software.html.

Accelerated Cost Recovery System), structures and structural components — such as heating/cooling systems and lighting—are depreciated over 39 years using the straight line method. Allowing a current deduction for energy efficient capital goods that would otherwise be depreciated over such a long period of time—that is, allowing expensing of the costs of such property—greatly accelerates, and increases the present value of, the deductions. This reduces effective tax rates and would normally encourage investment. However, given the 1) long lead time for constructing commercial buildings, and 2) complexity of determining the deduction, there is some question of its effectiveness in inducing investment in qualifying property.

Rationale

This deduction was introduced by the Energy Policy Act of 2005 (P.L. 109-58), to encourage businesses to retrofit their commercial buildings with energy conserving components and equipment. The goal was to enhance the energy efficiency of commercial buildings. The Energy Tax Act of 1978 (P.L. 96-518) provided for a 10 percent investment tax credit for certain categories of property that conserved energy in industrial processes, which generally applied to the manufacturing and agricultural sectors. These types of property—there were actually 13 categories—were called specially defined energy property, but none included property for conserving energy in commercial buildings. These credits generally expired at the end of 1982. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended this deduction by one year. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended it through December 31, 2013.

Assessment

Commercial buildings include a wide variety of building types—such as offices, hospitals, schools, police stations, places of worship, warehouses, hotels, barber shops, libraries, and shopping malls. These different commercial activities all have unique energy needs but, as a whole, commercial buildings use more than half their energy for heating and lighting. Electricity and natural gas are the most common energy sources used in commercial buildings, accounting for 95 percent of commercial sector primary energy consumption. The commercial sector in the United States uses almost as much energy as the residential sector but has not generally been the target of energy conservation incentives. As noted above, the (now-expired) energy tax credits of 1978 targeted the industrial energy sector.

The business profit maximizing (and cost minimizing) objective is generally sufficient to promote an economically efficient level of investment in energy-saving capital when the rate of return on such investments is above the opportunity cost. From an economic perspective, allowing special tax benefits for certain types of investment or consumption can result in a misallocation of resources. There are, however, cases where the market outcome may result in an underinvestment in commercial building energy efficiency. Specifically, if consumption of energy results in negative effects on society, such as pollution, the deduction under IRC § 179D might be justified. In general, however, it would be more economically efficient to directly tax polluting energy fuels than to subsidize a particular method of achieving conservation.

Incentives designed to promote energy efficiency in the commercial building sector attempt to reduce capital market barriers to energy efficiency investments by reducing high up-front costs. If capital markets are functioning efficiently, and businesses have access to capital and thus are able to make positive net present value investments, high up-front costs should not pose a barrier to energy efficiency investment. Technological uncertainty does increase the risk associated with certain energy efficiency investments, particularly in the case of unproven technologies.

The commercial sector may also under-invest in energy efficiency in cases where the person choosing the energy equipment for the building is not the same as the person paying the energy bills. In the case where building owners are not responsible for energy bills, building owners may install less efficient building components to minimize up-front capital costs, since the owner does not realize the energy savings directly. If, however, the building owner is able to recoup the higher installation costs associated with energy-efficient building components through higher rents, the market should determine the economically efficient level of investment in commercial building energy efficiency. Recent empirical evidence suggests that energy-efficient commercial buildings do command higher rents and sell at higher prices.

Selected Bibliography

Brown, Marilyn. "Market Failures and Barriers as a Basis for Clean Energy Policies," *Energy Policy*, v. 29. November 2001, pp. 1197-1207.

Deru, M. Energy Savings Modeling and Inspection Guidelines for Commercial Building Federal Tax Deductions, 2nd Ed., National Energy Renewable Laboratory Technical Report NREL/TP-550-40467, May 2007.

Eichholtz, Piet, Nils Kok, and John M. Quigley. "Doing Well by Doing Good? Green Office Buildings." *American Economic Review*, v. 100. December 2010, pp. 2492-2509.

Fisher, Anthony C., and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17. August 1989, pp. 397-406.

Hahn, Robert W. "Energy Conservation: An Economic Perspective." American Enterprise Institute, October 2005.

Hassett, Kevin A., and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21. June 1993, pp. 710-716.

Howarth, Richard B. and Bo Anderson. "Market Barriers to Energy Efficiency." *Energy Economics*, October 1993. pp. 262-292.

International Energy Agency. Mind the Gap: Quantifying Principal-Agent Problems in Energy Efficiency. 2007.

Kok, Nils, Marquise McGraw, and John M. Quigley. "The Diffusion of Energy Efficiency in Buildings." *American Economic Review: Papers and Proceedings*, v. 101. May 2011, pp. 77-82.

Metcalf, Gilbert E. "Economics and Rational Conservation Policy." *Energy Policy*, v. 22. October 1994, pp. 819-825.

National Science and Technology Council. *Net-Zero, High-Performance Green Buildings*. October 2008.

Peterman, Andrew, Arno Kourula, and Raymond Levitt. "A Roadmap for Navigating Voluntary and Mandated Programs for Building Energy Efficiency." *Energy Policy*, v. 43. April 2012, pp. 415-426.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources?" *Energy Sources*, v. 16. April 1994, pp. 257-268.

-. "The Economics of Energy Conservation Policy." *Energy Policy*, v. 24. April 1996, pp. 361-370.

- U.S. Congress. House. Committee on Energy and Commerce. *National Energy Policy: Conservation and Energy Efficiency*. Hearings Before the Subcommittee on Energy and Air Quality. Washington, DC: U.S. Government Printing Office, June 22, 2001.
- U.S. Department of Energy. Lawrence Berkeley National Laboratory. "Energy Efficiency, Market Failures, and Government Policy." Levine, Mark D., et al. March 1994.
- U.S. Department of Energy. Energy Efficiency & Renewable Energy. "2011 Buildings Energy Data Book." March 2012.

Energy

DEPRECIATION RECOVERY PERIODS FOR SPECIFIC ENERGY PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	0.6	0.6
2012	(¹)	0.7	0.7
2013	(¹)	0.6	0.6
2014	(1)	0.7	0.7
2015	(¹)	0.6	0.6

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 168(e).

Description

Under the Modified Accelerated Cost Recovery System (MACRS), the cost of tangible depreciable property (capital goods) placed in service after 1986 is recovered using (1) the applicable depreciation method, (2) the applicable recovery period, and the applicable convention. The recovery period for certain renewable energy equipment, including solar, wind, geothermal, fuel cell, combined heat and power (CHP), and microturbine property is 5 years. Renewable energy generation property that is part of a "small electric power facility" and certain biomass property is also recovered over 5 years. A qualified smart meter or qualified smart electric grid system (which are essentially energy monitoring and management devices) is recovered over 10 years. Certain electric transmission property and natural gas distribution lines originally placed in service after April 11, 2005, is MACRS property recovered over 15 years.

As is discussed elsewhere in this compendium, businesses may be eligible for an investment tax credit (ITC) for qualified investments in

renewables or a production tax credit (PTC) for electricity production using a renewable resource. General provisions that allow for depreciation of equipment in excess of the alternative depreciation system are also discussed elsewhere in this compendium.

Impact

A more beneficial depreciation method produces a tax subsidy that can be measured in different ways. One way is to express it as a percentage reduction in the cost. Based on a 5% real rate of return and a 2 percent inflation rate, the present value of 5, 10, 15, and 20-year depreciation per dollar of investment is, respectively \$0.87, \$0.77, \$0.64, and \$0.57. The differences between the 5, 10, and 15 year periods and the 20-year period is the difference between values multiplied by the tax rate. Using a 35 percent tax rate, these depreciation periods confer a reduction in the cost of acquiring the property of 11 percent for 5-year property, 7 percent for 10-year property, and 3 percent for 15 year property. The benefits can also be expressed as effective tax rates (the difference between the pre-tax required return on the investment and the after tax return). Assuming an economic depreciation rate of 3 percent and an equity financed investment, the effective tax rate using a 20-year life is 27 percent; for a 5-year life it is 10 percent, for a 10-year life, 17 percent, and for a 15 year life, 23 percent. Other types of subsidies in the tax law, such as the ITC and PTC, would further reduce effective tax rates, and could produce negative tax rates (net subsidies) or even negative investment returns before tax subsidies.

Rationale

The Tax Reform Act of 1986 (P.L. 99-514) assigned a 5-year recovery period to solar, wind, geothermal and ocean thermal, and biomass property that is part of a small electric power facility. This assignment was part of a major depreciation revision, and no specific justification for this change was provided, although it was presumably to encourage alternative energy sources that are less polluting than conventional fuels. The Energy Policy Act of 2005 (P.L. 109-58) reduced the recovery period for certain electric transmission property and natural gas distribution lines from 20 years to 15 years; no specific rationale was provided. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) shortened the depreciation recovery period for smart electric meters and smart electric grid equipment from 20 years to 10 years.

Assessment

Economic theory suggests that capital investments should be treated in a neutral fashion to maximize economic efficiency. Permanent investment subsidies, such as accelerated depreciation, may distort the allocation of capital in the long run. Some justifications may exist for favoring renewable energy resources on environmental grounds. Negative external costs associated with conventional fossil fuels, such as pollution, might justify favoring alternative energy resources. Economic efficiency may be enhanced by taxing energy sources believed to impose negative external costs, rather than subsidizing renewable alternatives.

Selected Bibliography

Chirinko, Robert S., Steven M. Fazzarri, and Andrew P. Meyer. "How Responsive is Business Capital Formation to its User Cost? An Exploration with Micro Data?" *Journal of Public Economics* vol. 74 (1999), pp. 53-80.

Cummins, Jason G., Kevin A. Hassett, and R. Glen Hubbard, "A Reconsideration of Behavior Using Tax Reforms as Natural Experiments." *Brookings Papers on Economic Activity*, 1994, no. 1, pp. 1-72.

Hungerford, Thomas L., and Jane G. Gravelle. *Business Investment and Employment Tax Incentives to Stimulate the Economy*. Library of Congress, Congressional Research Service Report R41034. Washington, DC: January 6, 2012.

Gravelle, Jane. Economic Effects of Taxing Capital Income. MIT Press, 1994.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress.* Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Energy

EXCEPTION FOR PUBLICLY TRADED PARTNERSHIPS WITH QUALIFIED INCOME DERIVED FROM CERTAIN ENERGY RELATED ACTIVITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	-	0.2
2012	0.2	-	0.2
2013	0.2	•••	0.2
2014	0.3	-	0.3
2015	0.3	_	0.3

Authorization

Section 7704.

Description

Code Sec. 7704, with a noteworthy exception, generally treats a publicly traded partnership (PTP) as a corporation for federal income tax purposes. For this purpose, a PTP is any partnership that is traded on an established securities market or secondary market.

A notable exception to Sec. 7704 occurs if 90 percent of the gross income of a PTP is passive-type income, such as interest, dividends, real property rents, gains from the disposition of real property, and similar income or gains. In these cases, the PTP is exempt from corporate level taxation, thus allowing it to claim pass-through status for tax purposes.

Qualifying income includes interest, dividends, real property rents, gain from the disposition of real property, income and gains from certain natural resource activities, gain from the disposition of a capital asset (e.g., selling stock), or certain property held for the production of income, as well as certain income and gains from commodities. In addition, gains related to the

marketing of certain alternative fuels are treated as qualifying income for publicly traded partnerships. Qualifying income does not include income derived from the production of power, or trading and investment activity.

Impact

In general, publicly traded partnerships favor the owners of publicly traded partnerships whose main source of qualifying income is from energy related activities. In contrast to an otherwise similar corporation, the owners of such a publicly traded partnership are not subject to a corporate level tax. In addition, the owners of PTPs benefit from deferral of income distributed by the PTP.

Rationale

The rules generally treating publicly traded partnerships as corporations were enacted by the Revenue Act of 1987 (P.L. 100-203) to address concern about erosion of the corporate tax base through the use of partnerships. Congress's concern was that growth in PTPs signified that activities that would otherwise be conducted by corporations, and subject to both corporate and shareholder level taxation, were being done by PTPs for purely tax reasons — eroding the corporate tax base.

The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) clarified the definition of qualified income to include income from the transport of oil and gas and from depletable natural resources. Income from the marketing of oil and gas to retail customers was excluded from qualified income. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expands the definition of qualified income to include income or gains from the transport or storage of certain biofuels.

Assessment

The fundamental issue, from a matter of tax policy, is whether some PTPs should be exempt from corporate level taxation, based upon the nature and type of their income. In general, Congress has enacted rules that limit the ability of untaxed entities to publicly trade their interests and/or restrict the entities activities. Thus, the exemption of some PTPs from corporate level taxes may be seen as a departure from general Congressional intent concerning passthrough entities. Others would argue that the types of qualifying income listed in statute are sufficient justification for the passthrough treatment.

Selected Bibliography

Fields, Deborah, Holly Belanger, Robert Swiech, and Eric Lee, "Triangles in a World of Squares: A Primer on Significant U.S. Federal Income Tax Issues for Natural Resources Publicly Traded Partnerships," *Taxes—The Tax Magazine*, Commerce Clearing House, December 2009, pp. 21-34.

Gentry, William M., "Taxes, Financial Decisions and Organizational Form: Evidence from Publicly Traded Partnerships," *Journal of Public Economics*, vol. 53, no. 2, (1994), pp. 223-244.

Livingstone, Jane R. and Thomas C. Omer. "Publicly Traded Partnerships, Tax Cost, and Choice of Entity," *Tax Notes*, Special Report, July 27, 2009, pp. 365-378.

Marples, Donald J. Taxation of Private Equity and Hedge Fund Partnerships: Characterization of Carried Interest. Library of Congress, Congressional Research Service Report RS22717. Washington, DC: March 10, 2011.

Martin, John D., and John W. Kensinger, "Valuation Effects of Rollout Publicly Traded Partnerships in the Oil and Gas Industry," *Managerial and Decision Economics*, vol. 11, no. 3, (1990), pp. 143-153.

National Association of Publicly Traded Partnerships, "Basic Tax Principles for MLP Investors," 2012, 2 p.

— . "Facts & Answers about Publicly Traded Partnerships," 2012, 4 p.

Schisler, Dan L. and James M. Lukawitz. "The Impact of the Omnibus Budget Reconciliation Act of 1987 on Shareholders of Publicly Traded Partnerships," *Advances in Taxation*, vol. 7, (1995), pp.141-159.

- U.S. Congress, House Committee on the Budget, *Omnibus Budget Reconciliation Act of 1987*, 100th Congress, 1st Session., October 26, 1987 (Washington, GPO, 1987).
- U.S. Congress, Joint Committee on Taxation, Present Law and Analysis Relating to Tax Treatment of Partnership Carried Interest and Related Issues, Part I, JCX-62-07, 110th Congress, 1st Session. (Washington, GPO, 1987).

Energy

EXCESS OF PERCENTAGE OVER COST DEPLETION: OIL, GAS, AND OTHER FUELS

Estimated Revenue Loss

[In billions of dollars]

	Individuals		Corporations		Total	
Fiscal year	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels
2011	(¹)	(¹)	0.9	0.2	0.9	0.2
2012	(¹)	(¹)	0.9	0.2	0.9	0.2
2013	(¹)	$\binom{1}{2}$	0.9	0.2	0.9	0.2
2014	(¹)	$\binom{1}{}$	1.0	0.2	1.0	0.2
2015	(¹)	$\binom{1}{}$	1.0	0.2	1.0	0.2

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 611, 612, 613, 613A, and 291.

Description

Firms that extract oil, gas, or other minerals are permitted a deduction to recover their capital investment in a mineral reserve, which depreciates due to the physical and economic depletion or exhaustion as the mineral is recovered (section 611). Depletion, like depreciation, is a form of capital recovery: An asset, the mineral reserve itself, is being expended in order to produce income. Under an income tax, such costs are deductible.

There are two methods of calculating this deduction: cost depletion and percentage depletion. Cost depletion allows for the recovery of the actual capital investment — the costs of discovering, purchasing, and developing a mineral reserve — over the period during which the reserve produces income. Each year, the taxpayer deducts a portion of the adjusted basis (original capital investment less previous deductions) equal to the fraction of

the estimated remaining recoverable reserves that have been extracted and sold. Under this method, the total deductions cannot exceed the original capital investment.

Under percentage depletion, the deduction for recovery of capital investment is a fixed percentage of the gross income — i.e., revenue — from the sale of the mineral. Under this method, total deductions typically exceed, despite the limitations, the capital invested to acquire and develop the reserve.

Section 613 states that mineral producers must claim the higher of cost or percentage depletion. The percentage depletion rate for oil and gas is 15% and is limited to average daily production of 1,000 barrels of oil, or its equivalent in gas, and only for wells located in the United States. For producers of both oil and gas, the limit applies on a combined basis. For example, an oil producing company with 2006 oil production of 100,000 barrels, and natural gas production of 1.2 billion cubic feet (the equivalent of 200,000 barrels of oil) has average daily production of 821.92 barrels (300,000 ÷ 365 days). Percentage depletion is not available to integrated major oil companies; it is available only for independent producers and royalty owners. An independent producer is one that does not have refinery operations that refine more than 75,000 barrels of oil per day, and does not have retail oil and gas operations grossing more than \$5 million per year. Beginning in 1990, the percentage depletion rate on production from marginal wells — oil from stripper wells (those producing no more than 15 barrels per day, on average), and heavy oil — was raised. This rate starts at 15% and increases by one percentage point for each whole \$1 that the reference price of oil for the previous calendar year is less than \$20 per barrel (subject to a maximum rate of 25%). This higher rate is also limited to independent producers and royalty owners, and for up to 1,000 barrels, determined as before on a combined basis (including non-marginal production). However, for 2009, high market crude oil prices limited the percentage depletion rate to 15%. Small independents operate about 400,000 small stripper wells in about 28 states, which produce about 800,000 barrels of marginal oil/day (1.7 trillion cubic feet of annual gas production), about 20% of domestic production in the lower 48 states.

Percentage depletion is limited to 65% of the taxable income from all properties for each producer. However, for tax years beginning after December 31, 2008 and before January 1, 2010, this limitation is suspended for marginal properties. A second limitation is the 100% net-income

limitation, which applies to each individual property rather than to all the properties. From 1998-2011, the 100% net-income limitation was also suspended for marginal production. Since 1990, transferred properties have been eligible for percentage depletion. The difference between percentage depletion and cost depletion is considered a subsidy. It was once a tax preference item for purposes of the alternative minimum tax, but this was repealed by the Energy Policy Act of 1992 (P.L. 102-486).

The percentage depletion allowance is available for many other types of fuel minerals, at rates ranging from 10% (coal, lignite) to 22% (uranium). The rate for regulated natural gas and gas sold under a fixed contract is 22%; the rate for geo-pressurized methane gas is 10%. Oil shale and geothermal deposits qualify for a 15% allowance. The net-income limitation to percentage depletion for coal and other fuels is 50%, as compared to 100% for oil and gas. Under code section 291, percentage depletion on coal mined by corporations is reduced by 20% of the excess of percentage over cost depletion.

Impact

Historically, generous depletion allowances and other tax benefits reduced effective tax rates in the fuel minerals industry significantly below tax rates on other industries, which provided additional incentives to increase investment, exploration, and output, especially of oil and gas. Oil and gas output, for example, rose from 16% of total U.S. energy production in 1920 to 71.1% in 1970 (the peak year).

The combination of this subsidy and the deduction of intangible drilling and other costs (see previous entry) represented a significant boon to mineral producers who were eligible for both. The deduction of intangible drilling costs allows up to three-quarters of the original investment to be "written off" immediately, and under the percentage depletion allowance a portion of gross revenues can be written off for the life of the investment. It was possible for cumulative depletion allowances to total many times the amount of the original investment.

The 1975 repeal of percentage depletion for the major integrated oil companies, and declining oil production, means that the value of this tax subsidy has been greatly reduced in the last 30 years. The reduction in the depletion allowance to 15% in 1984 means that independent producers benefit from it much less than they used to, although independents have increased their share of total output, and they qualify for the higher depletion

rate on marginal production. More recently, high oil and gas prices may have raised somewhat the subsidy value of percentage depletion to the independents. In addition, cutbacks in other tax benefits and additional excise taxes have raised effective tax rates in the mineral industries, although independent oil and gas producers continue to be favored. However, the exemption for working interests in oil and gas from the passive loss limitation rules still creates opportunities for tax shelters in oil and gas investments. This rule allows losses incurred from exploring for and producing oil and gas to offset ordinary non-oil and gas income.

Percentage depletion has little, if any, effect on oil prices, which are determined by supply and demand in the world oil market. However, it may encourage higher prices for drilling and mining rights.

Rationale

Provisions for a mineral depletion allowance based on the value of a mine were made under a 1912 Treasury Department regulation (T.D. 1742) but were never implemented. A court case resulted in the enactment, as part of the Tariff Act of 1913, of a "reasonable allowance for depletion" not to exceed 5% of the value of mineral output. Treasury regulation No. 33 limited total deductions to the original capital investment.

This system was in effect from 1913 to 1918, although in the Revenue Act of 1916, depletion was restricted to no more than the total value of output, and in the aggregate no more than capital originally invested or fair market value on March 1, 1913 (the latter so that appreciation occurring before enactment of income taxes would not be taxed).

The 1916 depletion law marked the first time that the tax laws mentioned oil and gas specifically. On the grounds that the newer discoveries that contributed to the war effort were treated less favorably, discovery value depletion was enacted in 1918. Discovery depletion, which was in effect through 1926, allowed deductions in excess of capital investment because it was based on the market value of the deposit after discovery. Congress viewed oil and gas as a strategic mineral, essential to national security, and wanted to stimulate the wartime supply of oil and gas, compensate producers for the high risks of prospecting, and relieve the tax burdens of small-scale producers.

In 1921, because of concern with the size of the allowances, discovery depletion was limited to net income; it was further limited to 50% of net

income in 1924. Due to the administrative complexity and arbitrariness of the method, and due to its tendency to establish high discovery values, which tended to overstate depletion deductions, discovery value depletion was replaced in 1926 by the percentage depletion allowance, at the rate of 27.5%.

In 1932, percentage depletion was extended to coal and most other minerals. In 1950, President Truman recommended that the depletion rate be reduced to 15%, but Congress disagreed. In 1969, the top depletion rates were reduced from 27.5% to 22%, and in 1970 the allowance was made subject to the minimum tax.

The Tax Reduction Act of 1975 eliminated the percentage depletion allowance for major oil and gas companies and reduced the rate for independents to 15% for 1984 and beyond. This was in response to the Arab oil embargo of 1974, which caused oil prices to rise sharply. The continuation of percentage depletion for independents was justified by Congress on the grounds that independents had more difficulty in raising capital than the major integrated oil companies, that their profits were smaller, and that they could not compete with the majors.

The Tax Equity and Fiscal Responsibility Act of 1982 limited the allowance for coal and iron ore. The Tax Reform Act of 1986 denied percentage depletion for lease bonuses, advance royalties, or other payments unrelated to actual oil and gas production.

The Omnibus Budget and Reconciliation Act of 1990 introduced the higher depletion rates on marginal production, raised the net income limitation from 50% to 100%, and made the allowance available to transferred properties. These liberalizations were based on energy security arguments. The Energy Policy Act of 1992 repealed the minimum tax on percentage depletion. The Taxpayer Relief Act of 1997 suspended the 100% taxable income limitation for marginal wells for two years, and further extensions were made by the Ticket to Work and Work Incentives Improvement Act of 1999 and the Job Creation and Worker Assistance Act of 2002. The Working Families Tax Relief Act of 2004 retroactively suspended the 100% net-income limitation through December 31, 2005. The Energy Policy Act of 2005 (P.L. 109-58) increased the per-day limitation on refining, for purposes of determining who is an independent producer, from 50,000 barrels per day to 75,000 barrels per day. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the suspension of the 100% netincome limitation through 2007. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the 100% net-income limitation for marginal properties for 2009. The Tax Relief, Unemployment Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the suspension of the 100% net-income limitation for marginal properties for an additional two years, 2010 and 2011.

Assessment

Standard accounting and economic principles state that the appropriate method of capital recovery in the mineral industry is cost depletion adjusted for inflation. The percentage depletion allowance permits independent oil and gas producers, and other mineral producers, to continue to claim a deduction even after all the investment costs of acquiring and developing the property have been recovered. Thus it is a mineral production subsidy rather than an investment subsidy.

Tax provisions that encourage investment in a specific industry may be justified in cases where they address a positive externality associated with either production or consumption of certain goods. For example, oil and natural gas prices do not reflect the environmental harm caused by the release of greenhouse gases in the atmosphere associated with oil and gas production and consumption. However, the percentage depletion tax subsidy for oil and gas production works against the goal of reducing the negative externalities associated with oil and gas production.

As a production subsidy, however, percentage depletion is economically inefficient. It incorrectly measures the income of qualifying independent oil and gas producers, and it encourages excessive development of existing properties — the source of the depletion benefit — over exploration for new ones, which will not produce a flow of depletion benefits until actual output results. This tax treatment contrasts with capital subsidies, such as accelerated depreciation for non-mineral assets. Although accelerated depreciation may lower effective tax rates by speeding up tax benefits, these assets cannot be used for depreciation deductions in excess of investment.

Percentage depletion for oil and gas subsidizes independent producers that are primarily engaged in exploration and production. To the extent that it stimulates oil production, it reduces dependence on imported oil in the short run, but it contributes to a faster depletion of the Nation's resources in the long run, which may increase long-term oil import dependence. Arguments have been made over the years to justify percentage depletion on grounds of unusual risks, the distortions in the corporate income tax, national security,

uniqueness of oil as a commodity, the industry's lack of access to capital, and protection of small producers.

Volatile oil prices make oil and gas investments more risky, but this would not necessarily justify percentage depletion or other tax subsidies. The corporate income tax does have efficiency distortions, but from an economic perspective income tax integration may be a more appropriate policy to address this problem.

To address national security concerns, one alternative is an oil stockpile program such as the Strategic Petroleum Reserve.

Selected Bibliography

Congressional Budget Office. Budget Options. Section 31: Curtail Income Tax Preferences for Businesses and Other Entities. February 2001.

Edmunds, Mark A. "Economic Justification for Expensing IDC and Percentage Depletion Allowance," *Oil & Gas Tax Quarterly*, v. 36. September 1987, pp. 1-11.

Energy Information Administration. Accelerated Depletion: Assessing the Impact on Domestic Oil and Natural Gas Prices and Production. SR/OIAF/2000-04. July 2000.

Fenton, Edmund D. "Percentage Depletion, RMFP, and the Exxon Cases," *Oil and Gas Tax Quarterly*, v. 52. September 2003, pp. 1-17.

Frazier, Jessica, and Edmund D. Fenton. "The Interesting Beginnings of the Percentage Depletion Allowance," *Oil and Gas Tax Quarterly*, v. 38. June 1990, pp. 697-712.

Ghiselin, Dick. "Drilling Economics" Oil and Gas Investor, December 2005, pp.13-22.

Gravelle, Jane G. "Effective Federal Tax Rates on Income from New Investments in Oil and Gas Extraction," *The Energy Journal*, v. 6. 1985, pp. 145-153.

Harberger, Arnold G. *Taxation and Welfare*. Chicago: Univ. of Chicago Press, 1974, pp. 218-226.

Hennessee, Patrick A. "Percentage Depletion — How Natural Gas Producers Can Avoid the Retailer Exclusion of 613A." *The Journal of Taxation*. July 2005, pp. 39-46.

— . Energy Tax Policy: An Economic Analysis. Library of Congress, Congressional Research Service, Report RL 30406. Washington, DC: June 28, 2005.

Lucke, Robert, and Eric Toder. "Assessing the U.S. Federal Tax Burden on Oil and Gas Extraction," *The Energy Journal*, v. 8. October 1987, pp. 51-64.

Lyon, Andrew B. "The Effect of Changes in the Percentage Depletion Allowance on Oil Firm Stock Prices," *The Energy Journal*, v. 10. October 1989, pp.101-116.

McDonald, Stephen L. Federal Tax Treatment of Income from Oil and Gas. The Brookings Institution, 1963.

Gilbert Metcalf, "Taxing Energy in the United States: Which Fuels Does the Tax Code Favor?" Center for Energy Policy and the Environment, 2009.

Rook, Lance W. "The Energy Policy Act of 1992 Changes the Effect of the AMT on Most Oil Producers," *Tax Advisor*, v. 24. August 1993, pp. 479-484.

Sherlock, Molly. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service, CRS Report R41227. Washington, DC: May, 2011.

Sherlock, Molly and Margot Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service, CRS Report R41769. Washington, DC: September, 2012.

Thomas, Christopher, S. Charles Maurice, D. Larry Crumbley. "Vertical Integration, Price Squeezing, and Percentage Depletion Allowance." *The Quarterly Review of Economics and Business*, v. 29. Winter 1989, pp. 26-37.

- U.S. General Accounting Office. Additional Petroleum Production Tax Incentives Are of Questionable Merit, GAO/GGD-90-75. Washington, DC: July 1990.
- U.S. Treasury Department. *Tax Reform for Fairness, Simplicity, and Economic Growth*, v. 2. Washington, DC: November 1984, pp. 229-231.
- U.S. Treasury Department. Internal Revenue Service. IRS Audit Guide: Oil and Gas Industry, Market Segmentation Specialization Program. 2006.

Energy

EXCLUSION OF ENERGY CONSERVATION SUBSIDIES PROVIDED BY PUBLIC UTILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	-	(¹)
2012	(¹)	-	(¹)
2013	(¹)	-	(¹)
2014	(¹)	-	$\binom{1}{2}$
2015	(¹)	-	$\binom{1}{2}$

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 136.

Description

In general, this provision allows a customer to deduct from their gross income the value of any subsidy provided (directly or indirectly) by a public utility for the purchase or installation of any energy conservation measure. An energy conservation measure is any installation or modification primarily designed to reduce consumption of electricity or natural gas or to improve the management of energy demand with respect to a dwelling unit. To the extent that an energy conservation expenditure qualifies for this exclusion, the taxpayer cannot claim any other tax benefits on the same expenditure.

Impact

The exclusion of these energy subsidies from gross income reduces the total cost of energy-efficient devices provided under programs sponsored by public utilities to conserve energy. Absent this provision, the value of any rebates or other incentives provided by the utility could be included in the taxpayer's gross income and subject to taxation. The tax savings generated

by this provision depend on the marginal tax rate of the taxpayer. This tax provision is applicable to dwelling units such as houses, apartments, condominiums, mobile homes, boats, or similar properties.

Rationale

An exclusion for residential customers had originally been enacted as part of the National Energy Conservation Policy Act of 1978 (P.L. 95-619). This exclusion was amended by Title V of the Energy Security Act of 1980 (P.L. 96-294), and then expired in mid-1989. The current provision was adopted as part of the Energy Policy Act of 1992 (P.L. 102-486), to encourage residential and business customers of public utilities to participate in energy conservation programs sponsored by the utility. The goal was to enhance the energy efficiency of dwelling units and encourage energy conservation in residential and commercial buildings. The Small Business Job Protection Act of 1996 (P.L. 104-188) repealed the exclusion with respect to business property, effective on January 1, 1997 (unless a binding contract was in effect on September 13, 1995). The 1996 amendments also dropped a part of section 136 that allowed the exclusion to apply to industrial energy conservation devices and technologies.

Assessment

Utilities sometimes use rebates and other incentives to induce their customers to invest in more energy efficient heating and cooling equipment, and other energy-saving devices. Such a program might be justified on the grounds of conservation, if consumption of energy resulted in negative effects on society, such as pollution. In general, however, it would be more efficient to directly tax energy fuels than to subsidize a particular method of achieving conservation. From an economic perspective, allowing special tax benefits for certain types of investment or consumption results in a misallocation of resources.

In rental housing, the tenant and the landlord lack strong financial incentives to invest in energy conservation equipment and materials because the benefits from such conservation may not entirely accrue to the party undertaking the cost of the energy-saving expenditure and effort. Tenants do not generally have motivation to improve the energy efficiency of a residence that does not belong to them unless the rate of return (or payback) is sufficiently large. However, most tenants do not occupy rental housing long enough to reap the full benefits of the energy conservation investments. Alternatively, landlords may not be able to control the energy consumption

habits of renters to sufficiently recover the full cost of the energy conservation expenditures.

If the units are individually metered and the tenant pays for electricity separately, the landlord may not undertake energy conservation investments since all the benefits would accrue to the renters unless higher rents could be charged on apartments with lower utility costs. If the units are under centralized control (rather than individually metered), the benefits of conservation measures may accrue largely to the landlord, but even here the tenants may have sufficient control over energy use to subvert the accrual of any gains to the landlord. In such cases, from the landlord's perspective, it may be easier and cheaper to forgo the conservation investments and simply pass on energy costs as part of the rents. Individual metering can be quite costly, and while it may reduce some of the distortions, it is not likely to completely eliminate them. Even if the landlord can charge higher rents, he may not be able to recover the costs of energy conservation efforts or investments.

These market failures may lead to underinvestment in conservation measures in rental housing and provide the economic rationale for this provision. Without such explicit exclusion, such subsidies would be treated as gross income and subject to tax. This exclusion, however, applies both to owner-occupied and to rental housing.

Selected Bibliography

Brown, Marilyn "Market Failures and Barriers as a Basis for Clean Energy Policies," *Energy Policy*, v. 29. November 2001, pp. 1197-1207.

Hahn, Robert W. "Energy Conservation: An Economic Perspective." American Enterprise Institute, October 2005.

Howarth, Richard B. and Bo Anderson. "Market Barriers to Energy Efficiency." *Energy Economics*, October, 1993. pp. 262-292.

Loskamp, Wendy. Energy, Water Efficiencies and Savings Come From Meter Data Management. Energy Pulse. Insight Analysis and Commentary on the Global Power Industry. http\www.energypulse.net.

Metcalf, Gilbert E. "Economics and Rational Conservation Policy." *Energy Policy*, v. 22. October 1994, pp. 819-825.

Pauley, Patricia, et al. "The Energy Policy Act of 1992: Provisions Affecting Individuals." *Taxes*, February, 1993, pp. 91-96.

Sherlock, Molly F. and Margot L. Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources." *Energy Sources*, v. 16, pp. 257-268.

Sutherland, Ronald J. "The Economics of Energy Conservation Policy." *Energy Policy*, v. 24. April 1996, pp. 361-370.

- U.S. Congress, House. Report to Accompany H.R. 776, the Comprehensive Energy Policy Act. Washington, DC: U.S. Government Printing Office, Report 102-474, Part 6, pp. 35-37.
- . House. Committee on Energy and Commerce. *National Energy Policy: Conservation and Energy Efficiency*. Hearings Before the Subcommittee on Energy and Air Quality. Washington, DC: U.S. Government Printing Office, June 22, 2001.
- U.S. Department of Energy. Lawrence Berkeley National Laboratory. "Energy Efficiency, Market Failures, and Government Policy." Levine, Mark D., et al. March 1994.
- U.S. Department of the Treasury. Internal Revenue Service. Gross Income v. Non-Gross Income: Energy Conservation Subsidies Provided by Utilities. Letter Ruling 200717010. January 19, 2007.

Energy

EXPENSING OF EXPLORATION AND DEVELOPMENT COSTS; AMORTIZATION OF GEOLOGICAL AND GEOPHYSICAL COSTS: OIL, GAS, AND OTHER FUELS

Estimated Revenue Loss

[In billions of dollars]

	Individuals		Corporations		Total	
Fiscal year	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels	Oil and Gas	Other Fuels
2011	(¹)	(¹)	0.8	(¹)	0.8	(1)
2012	(¹)	(¹)	0.8	(¹)	0.8	(¹)
2013	(¹)	(¹)	0.8	(¹)	0.8	(¹)
2014	(¹)	(¹)	0.7	(¹)	0.7	(¹)
2015	(¹)	(¹)	0.8	(¹)	0.8	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 263(c), 291, 616-617, 57(a)(2), 59(e) and 1254.

Description

Firms engaged in the exploration and development of oil, gas, or geothermal properties have the option of expensing (deducting in the year paid or incurred) rather than capitalizing (recovering such costs through depletion or depreciation) certain intangible drilling and development costs (IDCs). Expensing is an exception to general tax rules that provide for the capitalization of costs related to generating income from capital assets. In lieu of expensing, firms have the option of amortizing IDCs in equal amounts over a five-year period. This option may reduce or eliminate the alternative minimum tax on the IDCs, which, as discussed below, is a tax preference item.

IDCs are amounts paid by the operator for fuel, labor, repairs to drilling equipment, materials, hauling, and supplies. They are expenditures incident to and necessary for drilling wells and preparing a site for the production of oil, gas, or geothermal energy. IDCs include the cost to operators of any drilling or development work done by contractors under any form of contract, including a turnkey contract. Amounts paid for casings, valves, pipelines, and other tangible equipment that have a salvage value are capital expenditures and they cannot be expensed; they are recovered through depreciation. (And as discussed in the subsequent entry on percentage depletion, amounts expended to purchase a property are depleted using either percentage or cost depletion.) Geological and geophysical (G&G) costs — exploratory costs associated with determining the precise location and potential size of a mineral deposit — are amortized by independent producers over two years and by major integrated oil companies over seven years.

The option to expense IDCs applies to domestic properties, which include certain off-shore wells (essentially those within the exclusive economic zone of the United States), including generally offshore platforms subject to certain restrictions. Except for IDCs incurred in the North Sea, IDCs on foreign properties must be either amortized (deducted in equal amounts) over 10 years or added to the adjusted cost basis and recovered through cost depletion. An integrated oil company, generally a large producer that also has refining and marketing operations, can expense only 70% of the IDCs; the remaining 30% must be amortized over a five-year period. Dry hole costs for either domestic or foreign properties may be expensed or capitalized at the discretion of the taxpayer.

For integrated producers, the excess of expensed IDCs over the amortizable value (over a 10-year period) is a tax preference item that is subject to the alternative minimum tax to the extent that it exceeds 65% of the net income from the property. Independent (non-integrated) producers include only 60% of their IDCs as a tax preference item. As noted above, instead of expensing, a taxpayer may choose to amortize IDCs over a five-year period and avoid the alternative minimum tax. The amortization claimed under IRC section 59(e) is not considered a tax preference item for alternative minimum tax purposes. Prior to 1993, an independent producer's intangible drilling costs were subject to the alternative minimum tax, and the producer was allowed a special "energy deduction" for 100% of certain IDCs, subject to some limitations. If an operator has elected to amortize IDCs on a well that proves later to be a dry hole, the operator may deduct

such costs as an ordinary loss. The taxpayer is not required to include these costs as an IDC tax preference item in computing alternative minimum tax. If a property is disposed of prior to its exhaustion, any expensed IDCs are recaptured as ordinary income.

Impact

IDCs and other intangible exploration and development costs represent a major portion of the costs of finding and developing a mineral reserve. In the case of oil and gas, which historically accounted for 99% of the revenue loss from this provision, IDCs typically account for about 66% of the total exploration and development costs — the cost of creating a mineral asset.

Historically, expensing of IDCs was a major tax subsidy for the oil and gas industry, and, combined with other tax subsidies such as the depletion allowance, reduced effective tax rates significantly below tax rates on other industries. These subsidies provided incentives to increase investment, exploration, and output, especially of oil and gas. Oil and gas output, for example, rose from 16% of total U.S. energy production in 1920 to 71.1% in 1970 (the peak year). Coupled with reductions in corporate income tax rates, increased limits on expensing, and the alternative minimum tax, the value of this subsidy has declined over time. And, since the early 1970s, domestic crude oil production has fallen substantially. However, the subsidy still keeps effective marginal tax rates on oil and gas (especially for independent producers) somewhat below the marginal effective tax rates on other industries in most cases.

Unlike percentage depletion, which may only be claimed by independent producers, this tax expenditure is shared by both independents and by the integrated oil and gas producers. However, independent oil producers, many of which are large, drill 80% of the wells and undertake the bulk of the expenditures for exploration and development, thus receiving the bulk of the benefits from this tax expenditure. The at-risk, recapture, and minimum tax restrictions that have since been placed on the use of the provision have primarily limited the ability of high-income taxpayers to shelter their income from taxation through investment in mineral exploration. However, the exemption for working interests in oil and gas from the passive loss limitation rules still creates opportunities for tax shelters in oil and gas investments.

Rationale

Expensing of IDCs was originally established in a 1916 Treasury regulation (T.D. 45, article 223), with the rationale that such costs were ordinary operating expenses.

In 1931, a court ruled that IDCs were capital costs, but permitted expensing, arguing that the 15-year precedent gave the regulation the force of a statute. In 1942, Treasury recommended that expensing be repealed, but Congress did not take action. A 1945 court decision invalidated expensing, but Congress endorsed it (on the basis that it reduced uncertainty and stimulated exploration of a strategic mineral) and codified it as section 263(c) in 1954. Continuation of expensing has been based on the perceived need to stimulate exploratory drilling, which can increase domestic oil and gas reserves, and (eventually) production, reduce imported petroleum, and enhance energy security.

The Tax Reform Act of 1976 added expensing of IDCs as a tax preference item subject to the minimum tax. Expensing of IDCs for geothermal wells was added by the Energy Tax Act of 1978. The Tax Equity and Fiscal Responsibility Act of 1982 limited expensing for integrated oil companies to 85%; the remaining 15% of IDCs had to be amortized over 3 years.

The Deficit Reduction Act of 1984 limited expensing for integrated producers to 80% of IDCs. The Tax Reform Act of 1986 established uniform capitalization rules for the depreciation of property, but IDCs (as well as mine development and other exploration costs) are exempt from those rules. The Tax Reform Act further limited expensing for integrated producers to 70% of costs, and also repealed expensing of foreign properties.

In 1990, a special energy deduction was introduced, against the alternative minimum tax, for a portion of the IDCs and other oil and gas industry tax preference items. For independent producers, the Energy Policy Act of 1992 limited the amount of IDCs subject to the alternative minimum tax to 60% (70% after 1993) and suspended the special energy deduction through 1998. The Energy Policy Act of 2005 (P.L. 109-58) included a provision to amortize geological and geophysical (G&G) costs over two years. The Tax Increase Prevention and Reconciliation Act of 2006 (P.L. 109-222) raised the amortization period for geological and geophysical costs to five years for major integrated oil companies. The Energy Independence and Security Act of 2007 (P.L. 110-140), enacted on December 19, 2007,

further raised the amortization period for geological and geophysical expenditures incurred by major integrated oil companies from five to seven years.

Assessment

IDCs are generally recognized to be capital costs, which, according to standard economic principles, should be recovered using depletion (cost depletion adjusted for inflation). Lease bonuses and other exploratory costs (survey costs, geological and geophysical costs) are properly treated as capital costs, although they may be recovered through percentage rather than cost depletion. From an economic perspective, dry hole costs should also be depleted, rather than expensed, as part of the costs of drilling a successful well.

Immediate expensing of IDCs provides a tax subsidy for capital invested in the mineral industry, especially for oil and gas producers, with a relatively larger subsidy for independent producers. Technological innovation has reduced the percentage of dry holes in both exploratory and development drilling, thus reducing the tax benefits from immediate expensing of dry hole costs.

Expensing rather than capitalizing IDCs allows taxes on income to be effectively eliminated. As a capital subsidy, however, expensing is economically inefficient because it promotes investment decisions that are based on tax considerations rather than inherent economic considerations.

To the extent that IDCs stimulate drilling of successful wells, they reduce dependence on imported oil in the short run, but contribute to a faster depletion of the nation's resources in the long run. Arguments have been made over the years to justify expensing on grounds of unusual risks, national security, uniqueness of oil as a commodity, the industry's lack of access to capital, and protection of small producers.

Volatile oil prices make oil and gas investments very risky, but this would not necessarily justify expensing. The corporate income tax does have efficiency distortions, but economists argue that income tax integration may be a more appropriate policy to address this issue; sustained high oil and gas prices increase profits and provide sufficient financial incentives for exploration and drilling, making expensing unnecessary. For the goal of enhancing energy security, one alternative approach is through an oil stockpile program such as the Strategic Petroleum Reserve.

Selected Bibliography

Congressional Budget Office. Budget Options. Section 28: Repeal the Expensing of Exploration and Development Costs for Extractive Industries, February 2007, p. 295.

Eicher, Jeffrey D., and Leo N. Hitt. "The Alternative Minimum Tax System: A Stealth Tax," *Taxes*, v. 84 July 2006, pp. 37-45.

Friske, Karyn Bybee. "Alternative Minimum Tax Credit and the Consolidated Regulations: Is Simplification Possible?" *The Oil and Gas and Energy Quarterly*, September 2001, pp. 139-145.

Ghiselin, Dick. "Drilling Economics" Oil and Gas Investor, December 2005, pp. 13-22.

Gravelle, Jane G. "Effective Federal Tax Rates on Income from New Investments in Oil and Gas Extraction," *The Energy Journal*, v. 6 (1985), pp. 145-153.

Lazzari, Salvatore. Energy Tax Provisions in the Energy Policy Act of 1992. Library of Congress, Congressional Research Service, Report 94-525 E. Washington, DC: June 22, 1994.

Lucke, Robert, and Eric Toder. "Assessing the U.S. Federal Tax Burden on Oil and Gas Extraction," *The Energy Journal*, v. 8. October 1987, pp. 51-64.

Rook, Lance W. "The Energy Policy Act of 1992 Changes the Effect of the AMT on Most Oil and Gas Producers," *Tax Adviser*, v. 24 (August 1993), pp. 479-484.

Sherlock, Molly. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service, CRS Report R41227. Washington, DC: May, 2011.

Sherlock, Molly and Margot Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service, CRS Report R41769. Washington, DC: September, 2012.

- U.S Congress, Senate Committee on Finance. *JCT Description of Federal Energy Tax Provisions*, Hearings, 107th Congress, 1st session. Washington, DC: U.S. Government Printing Office, July 10th and 11, 2001.
- U.S. General Accounting Office. *Additional Petroleum Production Tax Incentives Are of Questionable Merit*, GAO/GGD-90-75. July 1990. Washington, DC: U.S. Government Printing Office, July 1990.
- U.S. Department of Energy Information Administration. *Performance Profiles of Major Energy Producers*. DOE/EIA-0206(06). December 2007.
- U.S. Department of Energy. Energy Information Administration. *Federal Interventions and Subsidies in Energy Markets*. SR/CNEAF/2008-01. April 2008.

- U.S. Treasury Department. *Tax Reform for Fairness, Simplicity, and Economic Growth*, v. 2. November 1984, Washington, DC: 1984, pp. 229-231.
- U.S. Treasury Department. Internal Revenue Service. *Publication 535: Business Expenses*. 2005.

Zlatkovich, Charles P., and Karl B. Putnam. "Economic Trends in the Oil and Gas Industry and Oil and Gas Taxation," *Oil and Gas Quarterly*, v. 41. March, 1993, pp. 347-365.

Energy

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT QUALIFIED PRIVATE ACTIVITY BONDS FOR ENERGY PRODUCTION FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(1)	(¹)
2012	(¹)	(1)	(¹)
2013	(¹)	(¹)	(¹)
2014	$\binom{1}{2}$	(1)	(¹)
2015	$\binom{1}{2}$	(1)	$\binom{1}{2}$

⁽¹⁾ Less than \$50 million.

Authorization

Sections 103, 141, 142(f), and 146.

Description

Interest income on state and local bonds used to finance the construction of certain private energy facilities for a city and one contiguous county or two contiguous counties, is tax exempt. These energy facility bonds are classified as private-activity bonds, rather than as governmental bonds, because a substantial portion of their benefits accrues to individuals or business rather than to the general public. These bonds are subject to the state private-activity bond annual volume cap. Generally, only those entities that were operating such a facility on January 1, 1997 are eligible for this type of financing. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to provide the services of local energy facilities at lower cost, benefitting end users. Some, perhaps most of the benefits of the tax exemption, however, flow to bondholders. For a discussion of the factors that determine the shares of benefits going to users and bondholders as well as estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

There are a variety of tax preferences intended to encourage private entities to invest in energy infrastructure. Congress authorized the continued use of tax-exempt bonds to reduce the operating cost of electricity generating facilities for a limited number of facilities. The restrictions on the bonds, disallowing any new issuers after 1996, were part of the Small Business Job Protection Act of 1992, P.L. 104-188. The rationale for grandfathering existing tax-exempt issuers was based on the original reason for allowing the tax-exempt financing: without the tax preference, local electricity generation may not have been viable in an open market for these producers. The entities cannot expand, however, without losing their authority to issue tax-exempt bonds. Thus, these local electric utilities are limited to their current size and service base. In addition, if a local entity wishes to expand or merge with a larger non-qualified entity, they must refinance all the outstanding tax-exempt debt with taxable debt.

Assessment

Any decision about changing the status of these entities would likely consider the Nation's need for local energy production. Even if a case can be made for a federal subsidy of energy production facilities based on underinvestment at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for energy production facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the range of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhang Xing. "Taxes on Tax-Exempt Bonds." *The Journal of Finance*, vol. 65, no. 2, 2010, pp. 565-601.

Longstaff, Francis A. "Municipal Debt and Marginal Tax Rates: Is There a Tax Premium in Asset Prices?" *Journal of Finance* 66, no. 3, June 2011, pp. 721-751.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457, September 10, 2010.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638, June 19, 2012.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds." *National Tax Journal*, vol. 64, no. 2, June 2011, pp. 591-613.

Sherlock, Molly F., and Steven Maguire. *Tax-Favored Financing for Renewable Energy Resources and Energy Efficiency*. Library of Congress, Congressional Research Service Report R41573, January 10, 2011.

- U.S. Congress, Joint Committee on Taxation, *The Revenue Effect of Tax-Exempt and Direct-Pay Bond Provisions*, Joint Committee Print JCX-60-12, July 16, 2012.
- U.S. Congress, Joint Committee on Taxation, *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.
- U.S. Congress, Joint Committee on Taxation. General Explanation of the Crude Oil Windfall Profits Tax Act of 1980. 96th Congress, 2nd session, 1980.
- U.S. Department of the Treasury, Internal Revenue Service. *Tax-Exempt Private Activity Bonds*, Publication 4078, June 2004.

Zimmerman, Dennis. Electricity Restructuring and Tax-Exempt Bonds: Economic Analysis of Legislative Proposals, Library of Congress, Congressional Research Service Report RL30411, January 20, 2000.

— . The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity. Washington, DC: The Urban Institute Press, 1991.

Energy

TAX CREDIT FOR PRODUCTION OF NON-CONVENTIONAL FUELS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	(¹)	(¹)
2012	(¹)	(¹)	$\binom{1}{1}$
2013	(¹)	(¹)	(¹)
2014	(¹)	(¹)	(¹)
2015	(¹)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 45K.

Description

Section 45K provides for a production tax credit of \$3 per barrel of oil-equivalent (in 1979 dollars) for certain types of liquid, gaseous, and solid fuels produced from selected types of alternative energy sources (so called "non-conventional fuels"), and sold to unrelated parties. The full credit is available if oil prices fall below \$23.50 per barrel (in 1979 dollars); the credit is phased out as oil prices rise above \$23.50 (in 1979 dollars) over a \$6 range (i.e., the inflation-adjusted \$23.50 plus \$6). The phase-out limit does not apply to coke or coke gas.

Both the credit and the phase-out range have been adjusted for inflation (multiplied by an inflation adjustment factor) since 1979. For 2009 the reference price of oil is \$56.39. The inflation adjustment factor is 1.1343, and the nonconventional source fuel credit prior to phase out is \$3.40 (\$3 x 1.1343) barrel-of-oil equivalent of qualified fuels.

Oualifying fuels include synthetic fuels "synfuels" (either liquid, gaseous, or solid), produced from coal, and gas produced from either geopressurized brine, Devonian shale, tight formations, or biomass. Synthetic fuels from coal, either liquid, gaseous, or solid, are also qualifying fuels provided that they meet the statutory and regulatory requirement that they undergo a significant chemical transformation, defined as a measurable and reproducible change in the chemical bonding of the initial components. In most cases, producers apply a liquid bonding agent to the coal or coal waste (coal fines), such as diesel fuel emulsions, pine tar, or latex, to produce the solid synthetic fuel. The coke or coke gas made from coal and used as a feedstock, or raw material (e.g., coke used in steel-making) also qualifies as a synthetic fuel as do the breeze (which are small pieces of coke) and the coke gas (which is produced during the coking process). However, coke or coke gas made from petroleum does not qualify for the tax credit. Depending on the precise Btu content of these synfuels, the section 45K tax credit could be as high as \$26/ton or more, which is a significant fraction of the market price of coal. Qualifying fuels must be produced within the United States. The credit for coke and coke gas is also \$3/barrel of oil equivalent and is also adjusted for inflation, but the credit is set to a base year of 2004, making the nominal unadjusted tax credit less than for other fuels.

The section 45K credit for gas produced from biomass, and synthetic fuels produced from coal or lignite, was available through December 31, 2007, provided that the production facility was placed in service before July 1, 1998, pursuant to a binding contract entered into before January 1, 1997. The credit for coke and coke gas was available through December 31, 2009, for plants placed in service before January 1, 1992, and after June 30, 1998 and before January 1, 2010. Thus, generally, the credit has expired. The section 45K credit used to apply to oil produced from shale or tar sands, and coalbed methane (a colorless and odorless natural gas that permeates coal seams and is virtually identical to conventional natural gas). But for these fuels the credit terminated on December 31, 2002 (and the facilities had to have been placed in service or wells drilled by December 31, 1992).

The section 45K credit is part of the general business credit. It is not claimed separately; it is added together with several other business credits, and is also subject to the limitations of that credit. The section 45K credit is also offset (or reduced) by other types of government subsidies that a taxpayer may benefit from: government grants, subsidized or tax-exempt financing, energy investment credits, and the enhanced oil recovery tax credit that may be claimed with respect to such project. Finally, the credit is

nonrefundable and cannot be used to offset a taxpayer's alternative minimum tax liability. Any unused section 45K credits generally may not be carried forward or back to another taxable year. (However, under the minimum tax section 53, a taxpayer receives a credit for prior-year minimum tax liability to the extent that a section 45K credit is disallowed as a result of the operation of the alternative minimum tax.)

Impact

The production tax credit is intended to reduce the marginal (and average) costs of producing the qualifying non-conventional fuels so as to be profitable enough to compete with conventional fuels. For those fuels whose cost reductions (and increased rates of return) are sufficiently large, the resulting price effects could encourage increased production of the subsidized non-conventional fuels for the more conventional fuels. To the extent that these effects stimulate the supply of fuels such as shale oil or heavy oil, the resulting substitution effects lead to a reduction in the demand for petroleum, and a reduction in imported petroleum (the marginal source of oil), which would work toward the credit's original purpose: enhancing energy security.

However, to date, the credits have not stimulated production of fuels, such as shale oil or heavy oil, that would substitute for petroleum. These and other non-conventional fuels are still generally too costly to be profitably produced. With the exception of coalbed methane, tight sands gas, and synfuels from coal, the credit's effects have, generally, not been sufficient to offset the disincentive effects of previously low and unstable oil prices, and the high cost of non-conventional fuels mining and production. High crude oil prices can render some of the non-conventional petroleum fuels (such as oil shale and tar sands) competitive, which might stimulate production even without a tax credit. However, variable oil prices add to the risk of these and other types of energy ventures and investments, and undermine profitability and investments in these areas.

The primary supply effects of the section 45K tax credit have been on non-conventional gases, particularly of coalbed methane, tight sands gas, and shale gas. The credit has increased drilling for these gases, and added to total natural gas reserves. In the case of coalbed methane, the combined effect of the large tax credit (the credit of \$1.00 per million cubic feet (mcf) was, at times, 100% of natural gas prices), and declining production costs (due to technological advances in drilling and production techniques) helped boost production from 0.1 billion cubic feet in 1980 to 1.6 trillion cubic feet in

2003. More recently, favorable rulings by the Internal Revenue Service have increased the production of solid synthetic fuels from coal, increasing the supply of these fuels for use as a feedstock in steel-making operations and in electricity generation. The credit for coalbed methane benefits largely oil and gas producers, both independent producers and major integrated oil companies, and coal companies. Many oil and gas companies, such as DTE Energy and Phillips Petroleum, used section 45K tax credits to help reduce their effective tax rates.

Rationale

The original concept for the alternative fuels production tax credit goes back to an amendment by Senator Talmadge to H.R. 5263 (95th Congress), the Senate's version of the Energy Tax Act of 1978 (P.L. 95-618), one of five public laws in President Carter's National Energy Plan. H.R. 5263 provided for a \$3.00 per barrel tax credit or equivalent, but only for production of shale oil, gas from geopressurized brine, and gas from tight rock formations.

The final version of the Energy Tax Act did not include the production tax credit. The original concept was reintroduced in 1979 by Senator Talmadge as S. 847 and S. 848, which became part of the Crude Oil Windfall Profit Tax Act of 1980 (P.L. 96-223).

The purpose of the credits was to provide incentives for the private sector to increase the development of alternative domestic energy resources because of concern over oil import dependence and national security. The United States has a large resource base of unconventional energy resources, including shale oil and unconventional gases such as tight sands gas and coalbed methane. According to the U.S. Geological Survey and the Minerals Management Service, estimated U.S. recoverable reserves of unconventional gases exceed those of any other category of gas, including estimates of conventional reserves, making up 35% of the total.

The section 45K credit's "placed-in-service" rule has been amended several times in recent years. The original 1980 windfall profit tax law established a placed-in-service deadline of December 31, 1989. This was extended by one year to December 31, 1990, by the Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647). That deadline was extended to December 31, 1991, as part of OBRA, the Omnibus Budget Reconciliation Act of 1990 (P.L.101-508). The Energy Policy Act of 1992 (P.L.102-486) extended coverage for facilities for biomass and fuels

produced from coal through 1997 and extended the credit on production from these facilities through 2007. The Small Business Jobs Protection Act of 1996 (P.L. 104-188) further extended the placed-in-service rule by an additional 18 months. In Rev. Proc. 2001-30 and 2001-34, the Internal Revenue Service implemented regulations that permitted greater production of solid synthetic fuels from coal to qualify for the section 45K credit. Some have questioned the scientific validity of these rules and have christened the process "spray and pray."

The American Jobs Creation Act of 2004 (P.L. 108-357) provided a production tax credit for refined coal. The production tax credit's provisions were inserted in section 45 of the tax code, the section that provides a tax credit for electricity produced from renewable energy resources. (A discussion of the section 45 tax credit appears elsewhere in the Energy section of this compendium.)

The Energy Policy Act of 2005 (P.L. 109-58) made several amendments to the section 45K tax credit. First, the credit's provisions were moved from section 29 of the tax code to new section 45K. Before this, this credit was commonly known as the "section 29 credit." Second, the credit was made available for qualified facilities that produce coke or coke gas that were placed in service before January 1, 1993, or after June 30, 1998, and before January 1, 2010, Coke and coke gas produced and sold during the period beginning on the later of January 1, 2006, or the date the facility is placed in service, and ending on the date which is four years after such period begins, would be eligible for the production credit, but at a reduced rate and only for a limited quantity of fuel. The tax credit for coke and coke gas would be \$3.00/barrel of oil equivalent, but the credit would be indexed for inflation starting with a 2004 base year as compared with a 1979 base year for other fuels. A facility producing coke or coke gas and receiving a tax credit under the previous section 29 rules would not be eligible to claim the credit under the new section 45K. The new provision also requires that the amount of credit-eligible coke produced not exceed an average barrel-of-oil equivalent of 4,000 barrels per day. Third, the 2005 Act provided that, with respect to the IRS moratorium on taxpayer-specific guidance concerning the credit, the IRS should consider issuing rulings and guidance on an expedited basis to those taxpayers who had pending ruling requests at the time that the IRS implemented the moratorium. Finally, the 2005 legislation made the general business limitations applicable to the tax credit. Any unused credits could be carried back one year and forward 20 years, except that the credit could not be carried back to a taxable year ending before January 1, 2006. These new

rules were made effective for fuel produced and sold after December 31, 2005, in taxable years ending after such date.

The Tax Relief and Health Care Act of 2006 (P.L. 109-432) eliminated the phase-out limit for coke and coke gas, and clarified that petroleum based coke or coke gas does not qualify.

Assessment

The section 45K credit has significantly reduced the cost and stimulated the supply of unconventional gases — particularly of coalbed methane from coal seams not likely to be mined for coal in the foreseeable future, and of tight sands gas and shale gas. Due to recently tight natural gas markets and relatively high prices, these additional supplies might have kept natural gas prices from rising even more.

In general, much of the added gas output has substituted for domestic and imported (i.e., Canadian) conventional natural gas rather than for imported petroleum, meaning that the credit has basically not achieved its underlying energy policy objective of enhancing energy security by reducing imported petroleum. More recently, additional supplies of domestic unconventional gases may be substituting for imported LNG (liquefied natural gas). Declining conventional natural gas production in Texas, New Mexico, Oklahoma, Louisiana, and the Gulf of Mexico has been partially offset by increases in Colorado and Wyoming, reflecting the growing prominence of unconventional sources such as tight sands, shales, and coalbeds.

Economists see little justification for such a credit on grounds of allocative efficiency, distributional equity, or macroeconomic stability. From an economic perspective, although tax incentives are generally less distortionary than mandates and standards, critics maintain that the section 45K tax credit compounds distortions in the energy markets, rather than correcting for preexisting distortions due to pollution, oil import dependence, "excessive" market risk, and other factors. Such distortions may be addressed by other policies: Pollution and other environmental externalities may be dealt with by differential taxes positively related to the external cost; excessive dependence on imported petroleum and vulnerability to embargoes and price shocks have led to calls for either an oil import tax or a petroleum stockpile such as the Strategic Petroleum Reserve.

The credit has not encouraged the collection of coalbed methane from active coal mines, which continues to be vented and which contributes a potent greenhouse gas linked to possible global warming. Hydraulic fracturing of coal beds, and other environmental effects from the production of coalbed methane and other unconventional gases, is coming under greater scrutiny.

In recent years, many of the benefits of the tax credits have accrued to coal producers and users, who spray the coal with a fuel and sell it as a solid synthetic fuel. The coal industry has also benefitted from the expansion of the credit to coke and coke gas. Under the original statute and regulations, such conversion of coal into a synthetic fuel was premised on a significant chemical transformation that would increase the energy content of the resulting fuel.

Selected Bibliography

Andrews, Anthony. *Oil Shale: History, Incentives, and Policy*. Library of Congress. Congressional Research Service Report RL33359, Washington, DC. April 13, 2006.

Bryner, Gary C. "Coalbed Methane Development: The Costs and Benefits of an Emerging Energy Resource." *Natural Resource Journal*, v. 43, Spring 2003. pp. 519-560.

Clark, Judy. "Geopolitics, Unconventional Fuels to Reshape Industry," *Oil and Gas Journal*, April 25, 2005, pp. 40-43.

Crow, Patrick, and A.D. Koen. "Tight Gas Sands Drilling Buoying U.S. E & D Activity." *Oil and Gas Journal*, v. 90. November 2, 1992, pp. 21-27.

Fletcher, Sam. "Major U.S. Supply Role Seen for Unconventional Gas," *Oil and Gas Journal*, December 20, 2004, pp. 32-34.

Kuuskraa, Vello A., and Charles F. Brandenburg. "Coalbed Methane Sparks New Energy Industry," *Oil and Gas Journal*, v. 87. October 9, 1989, pp. 49-56.

Lazzari, Salvatore. Economic Analysis of the Section 29 Tax Credit for Unconventional Fuels, Library of Congress, Congressional Research Service Report 97-679 E. Washington, DC: July 7, 1997.

- . "Energy Taxation: Subsidies for Biomass," *Encyclopedia of Energy Technology and the Environment*, John Wiley & Sons, 1995, pp. 1238-1245.
- . Energy Tax Policy: History and Current Issues. Library of Congress, Congressional Research Service Report RL33578, Washington, DC. July 28, 2006.
- . Energy Tax Policy: An Economic Analysis. Library of Congress, Congressional Research Service Report RL30406. Washington, DC: June 28, 2005.

Lemons, Bruce N., and Larry Nemirow. "Maximizing the Section 29 Credit in Coal Seam Methane Transactions," *The Journal of Taxation*. April 1989, pp. 238-245.

Matlock, Judith M. and Laurence E. Nemirow. "Section 29 Credits: The Case Against Requiring an NGPA Well-Category Determination," *Journal of Taxation*, v. 85. August 1996, pp. 102-107.

McIntire Robert, and T.D. Coo Nguyen. *Corporate Income Taxes in the 1990s*. Citizens for Tax Justice. October 2000.

McKinnon, John D. "Washington Alchemy Turns Coal Products Into Big Tax Credits." *The Wall Street Journal*, v. 238, July 12, 2001.

Morgan, Dan. "Coal State Senators Question Tax Audits: IRS Reviews Use of Synthetic Fuel Credits." *The Washington Post*, September 13, 2003. p. A-3.

Schraufnagel, D., G. Hill, and R. A. McBane. *Coalbed Methane: A Decade of Success*. Paper Presented at the Conference of the Society of Petroleum Engineers. 1994.

Sherlock, Molly F., and Margot Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: Sept. 24, 2012.

U.S. Treasury Department. Internal Revenue Service. IRS Notice 2008-44 on Section 45K Inflation Adjustment Factor, Reference Price for Nonconventional Source Fuel Credit. March 31, 2008.

Wills, Irene Y., and Norman A. Sunderman. "Section 29 Tax Credit Still Available," *Oil and Gas Tax Quarterly*, v. 40. December 1991.

Energy

TAX CREDIT FOR THE PRODUCTION OF ENERGY-EFFICIENT APPLIANCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.2	0.2
2012	-	0.1	0.1
2013	-	(¹)	(¹)
2014	-	(¹)	(¹)
2015	-	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 45M.

Description

Internal Revenue Code section 45M provides a tax credit for qualified production (manufacture) of certain energy-efficient dishwashers, clothes washers, and refrigerators. For dishwashers manufactured in 2011, the per unit credit is as follows: \$25 for models which use no more than 307 kilowatt hours (kWh) per year and 5.0 gallons per cycle (5.5 gallons per cycle for dishwashers designed for greater than 12 place settings); \$50 for models which use no more than 295 kWh per year and 4.25 gallons per cycle (4.75 gallons per cycle for dishwashers designed for greater than 12 place settings); and \$75 for models which use no more than 280 kWh per year and 4 gallons per cycle (4.5 gallons per cycle for dishwashers designed for greater than 12 place settings). For clothes washers manufactured in 2011, the per unit credit is as follows: \$175 for top-loading washers which meet or exceed a 2.2 modified energy factor (MEF) and does not exceed a 4.5 water consumption factor (WCF) and \$225 for top-loading washers which meet or exceed a 2.4 MEF and does not exceed a 4.2 WCF or front-loading washers

which meet or exceed a 2.8 MEF and does not exceed a 3.5 WCF. For refrigerators manufactured in 2011, the per-unit credit is as follows: \$150 for units at least 30 percent more efficient that the 2001 energy conservation standards and \$200 for units at least 35 percent more efficient than the 2001 energy conservation standards. The credits available in 2011 require higher efficiency standards per credit dollar than credits available in previous years.

Each manufacturer is only eligible for credits for domestic production of energy-efficient units in excess of average production over the past two years. Beginning in 2011, each manufacturer is limited to \$25 million in credits, or 4 percent of the taxpayer's average annual gross receipts for the preceding three tax years (prior to 2011 each manufacturer was limited to \$75 million in credits or 2 percent of annual gross receipts).

The appliance credit is part of the general business credit. It is claimed in concert with a variety of other business tax credits, and it is subject to the limits of those credits as well. This provision became effective for appliances produced after December 31, 2005 and expired December 31, 2011. This credit has previously been extended as part of "tax extender" legislation.

Impact

The appliance tax credits provide a per-unit subsidy for domestic production of certain energy-efficient appliances. The tax credit is coordinated with energy-efficiency standards and Energy Star criteria. Under the U.S. Department of Energy's Energy Star program, appliances meeting certain standards receive Energy Star certification, which helps consumers identify energy-efficient options. The tax credit is designed to award manufacturers producing products that exceed Energy Star certification criteria. The tax credit helps offset higher manufacturing costs associated with energy-efficient models. Further, the subsidy is designed to increase the production of energy-efficient models, as the incentives are only available for production in excess of previous levels.

As the tax credit decreases the costs of manufacturing energy-efficient appliances relative to less efficient alternatives, manufacturers will shift their resources towards manufacturing energy-efficient models. As the supply of energy-efficient models increases, the price is expected to fall. As energy-efficient models become cheaper relative to other appliances, the quantity demanded of energy-efficient models is expected to increase.

Rationale

Section 45M was established by the Energy Policy Act of 2005 (P.L. 109-58) to encourage production of appliances that exceed the minimum federal energy-efficiency standards. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) restructured and raised the basic credit amounts, tightened the energy efficiency standards, and extended the credit for appliances manufactured through 2010. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) further increased qualifying efficiency standards and modified per-unit credit amounts and per-manufacturer limits.

Assessment

Tax credits for energy-efficient appliances may improve economic efficiency, if there are market failures in the market for energy-efficient appliances. Market failures could exist if consumers fail to take into account the full costs associated with electricity consumption. Specifically, electricity generated using fossil fuels imposes costs by way of pollution. To the extent that consumers fail to take these costs into consideration when choosing electricity consumption levels, electricity consumption exceeds economically efficient levels. Markets may fail to provide the economically efficient level of energy-efficiency if lack of credit prevents consumers from purchasing appliances with higher up-front costs. Markets may also fail to provide the economically efficient level of energy-efficiency if there are principal-agent problems. Specifically, when the person making purchasing choices is not the end user, the purchaser may fail to consider future energy savings, and instead focus on initial cost. Principal-agent problems have been shown to exist in markets for rental housing, where landlords purchase appliances that are ultimately used by tenants. Principal-agent problems may also exist in the market for new homes, where builders who are not the end user make choices regarding the energy-efficiency of certain property. Principal-agent problems exist when the party installing the property (the landlord or the builder) is unable to recoup the increased costs associated with energyefficiency through higher rents or home prices. While reducing the price of energy-efficient relative to conventional goods may help address these market failures, the market failures could be addressed more efficiently by taxing polluting energy sources directly.

Tax incentives for energy-efficient appliances can be provided either to the producers (supply side) or consumers (demand side) of energy-efficient appliances. According to economic theory, the effect will be the same, regardless of which party initially receives the incentive. If tax credits are provided to producers, it is expected that these credits will be shared with consumers in the form of lower prices. If tax credits or other subsidies (i.e., rebates) are provided to consumers, it is expected that producers will increase their prices, thereby capturing some of the benefit.

Providing credits to suppliers rather than consumers may be appealing for a number of reasons. First, it is easier to process claims for tax credits from a handful of manufacturers as opposed to hundreds of thousands of individual taxpayers (in 2009, data from the Internal Revenue Service (IRS) show that six corporations claimed the credit). Second, providing tax credits to manufacturers may also be attractive as it reduces prices of energy-efficient appliances equally for all consumers. Tax credits awarded to individuals are only available for those with a positive tax liability. Further, evidence on the effect of energy-efficient appliance rebates on market share is mixed, indicating that demand side incentives may not consistently increase purchases of energy-efficient models.

Overall, a relatively small share of the appliance market is eligible for the tax credits awarded under section 45M. Further, it is not clear that the tax credits are fully responsible for increased manufacturing of energy-efficient appliances. Some of the tax credits being claimed benefit manufacturers that would have increased production of qualifying energy-efficient appliances without the credit. Manufacturers may increase the number of energy-efficient appliances produced in response to general market trends or in response to anticipated increases in appliance standards or Energy Star criteria. Credits awarded to manufacturers that would have increased production without the incentive are economically inefficient, as they provide a windfall benefit to the taxpayer.

Finally, from an economic perspective, allowing special tax credits for certain targeted activities distorts the allocation of resources. Targeted tax credits encourage companies to undertake certain types of investments and production that would not otherwise be economical at current and expected prices and rates of return. In the case of energy-efficient appliances, the credits are targeted to include dishwashers, clothes washers, and refrigerators. Other appliances with higher energy consumption, such as clothes dryers, are excluded.

Selected Bibliography

Brown, Marilyn. "Market Failures and Barriers as a Basis for Clean Energy Policies," *Energy Policy*, v. 29. November 2001, pp. 1197-1207.

Dale, Larry and K. Sydney Fujita, An Analysis of the Price Elasticity of Demand for Household Appliances, Lawrence Berkeley National Laboratory, Berkeley, CA, February 2008.

Datta, Souvik and Sumeet Gulati, "Utility Rebates for Energy Star Appliances: Are They Effective," *Center for Energy Policy and Economics*, Working Paper #81. September 2011.

Davis, Lucas W., Evaluating the Slow Adoption of Energy Efficient Investments: Are Renters Less Likely to Have Energy Efficient Appliances? Published in The Design and Implementation of U.S. Climate Policy. National Bureau of Economic Research. September 2012, pp. 301 – 316.

Fisher, Anthony C., and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17. August 1989, pp. 397-406.

Hahn, Robert W. "Energy Conservation: An Economic Perspective." American Enterprise Institute, October 2005.

Hassett, Kevin A., and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21. June 1993, pp. 710-716.

Howarth, Richard B. and Bo Anderson. "Market Barriers to Energy Efficiency." *Energy Economics*, October, 1993. pp. 262-292.

International Energy Agency. Mind the Gap: Quantifying Principal-Agent Problems in Energy Efficiency. 2007.

Levinson, Arik and Scott Niemann, "Energy Use by Apartment Tenants when Landlords Pay for Utilities." *Resource and Energy Economics*, v. 26. 2004. pp. 51-75.

Loskamp, Wendy. "Energy, Water Efficiencies and Savings Come From Meter Data Management. Energy Pulse." Insight Analysis and Commentary on the Global Power Industry. http\www.energypulse.net.

Metcalf, Gilbert E. "Economics and Rational Conservation Policy." Energy Policy, v. 22. October 1994, pp. 819-825.

Pimental, D., A. Pleasant, et al. "U.S. Energy Conservation and Efficiency." Energy, Development, and Sustainability. V. 6, September 2004. pp. 279-306.

Scafidi, Catina M., and Anthony P. Curatola. "ETIA of 2005 and New Energy-Efficient Appliances." *Strategic Finance*. V. 87, June 2006. Montvale: pp. 16-18.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress.* Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources." *Energy Sources*, v. 16, 1994. pp. 257-268.

- . "The Economics of Energy Conservation Policy." *Energy Policy*, v. 24. April 1996, pp. 361-370.
- U.S. Department of Energy. Lawrence Berkeley National Laboratory. "Energy Efficiency, Market Failures, and Government Policy." Levine, Mark D., et al. March 1994.
- U.S. Department of the Treasury. Internal Revenue Service. "2009 Estimated Data Line Counts Corporate Tax Returns." http://www.irs.gov/uac/SOI-Tax-Stats----Corporation-Tax-Statistics.

Young, Denise. "When Do Energy-Efficient Appliances Generate Energy Savings? Evidence from Canada." *Energy Policy*, v. 36. January 2008. pp.157-173.

Energy

TAX CREDIT FOR RESIDENTIAL ENERGY-EFFICIENT PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	-	0.2
2012	0.2	-	0.2
2013	0.2	-	0.2
2014	0.2	-	0.2
2015	0.2	-	0.2

Authorization

Section 25D.

Description

A 30% tax credit is available for the purchase of residential solar electric property, certain solar water heating property (used for purposes other than heating swimming pools or hot tubs), geothermal heat pumps, small wind energy property, and fuel cell power plants. For fuel cell property, the credit is limited to \$500 per half kilowatt (kW) of capacity. Otherwise, there is no maximum credit amount. Eligible expenditures also include labor costs associated with onsite preparation, assembly, or installation of the property.

To qualify for the tax credit, eligible property must be installed in the United States in a dwelling used as a residence by the taxpayer. For fuel cell power plants to qualify, they must be installed in connection with the taxpayer's principal residence.

The tax credit is nonrefundable, but unused credits may be carried forward to offset future tax liability. The credit may also be claimed against the alternative minimum tax.

The credit is available for property placed in service through December 31, 2016.

Impact

The goal of residential energy efficiency and renewable energy tax incentives is to increase energy efficiency in the residential sector, while reducing the amount of energy derived from non-renewable or polluting energy resources.

There has been substantial growth in residential installations of solar photovoltaics (PV) in recent years. Between 2010 and 2011, installations increased by 21 percent. Growth relative to recent years has slowed. For example, residential PV solar capacity doubled between 2008 and 2009. The large increase in solar PV installations between 2008 and 2009 may be partially attributable to the removal of the \$2000 cap previously associated with the tax credit under § 25D. The removal of the \$2000 cap, however, was not associated with a dramatic increase in solar water- and space-heating capacity.

There are several factors that may have contributed to recent increases in solar panel installations. The cost of installing residential renewable energy property, particularly solar, has declined in recent years. Further, there are a number of financial incentives and other programs supporting deployment of residential renewable energy technologies at the state level. It is difficult to determine whether residential renewable energy investments are being driven by declining prices, federal incentives, or state-level policies.

Residential energy efficiency tax credits are disproportionately claimed by higher-income households. In 2008, 228,000 taxpayers claimed the § 25D residential energy-efficient property credit. The average credit received was \$966. Nearly 72% of those claiming credits in 2008 had an adjusted gross income (AGI) above \$50,000. Of all taxpayers, approximately 35% had an AGI in excess of \$50,000 in 2008. Data for tax years other than 2008 combine claims of the § 25D residential energy-efficient property credit with the § 25C tax credit for energy-efficiency improvements to existing homes (discussed elsewhere in this compendium). Thus, data on the distribution of § 25D credits across income groups is not available for tax years other than 2008.

Rationale

The credit for residential energy-efficient property (Internal Revenue Code (IRC) §25D) was introduced by the Energy Policy Act of 2005 (EPACT05; P.L. 109-58). The tax incentives enacted in 2005 were similar to incentives for residential wind and solar that had been part of the Energy Tax Act of 1978 (P.L. 95-618). These earlier incentives were allowed to expire in 1985. Under EPACT05, a 30% credit was made available for residential solar electric, solar water heating, and fuel cell property. For solar equipment, the tax credit was limited to \$2000. The credit for fuel cells was limited to \$500 per half kW of capacity. Initially, the credits were set to expire December 31, 2007.

The credit for residential energy efficient property was extended through the end of 2008 by the Tax Relief and Healthcare Act of 2006 (P.L. 109-432). The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the credits again, through December 31, 2016, and added small wind and geothermal heat pumps to the list of eligible property. P.L. 110-343 also included provisions allowing the credit to be claimed against the alternative minimum tax (AMT). The American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5) removed the credit caps associated with various technologies (except for the limits associated with fuel cells) for property placed in service after 2008. ARRA also removed credit limitations previously placed on projects receiving subsidized energy financing.

Enhancing residential energy efficiency is consistent with the long-term energy policy goals of reducing energy consumption and addressing environmental concerns. Policies designed to promote residential energy efficiency and residential renewable energy are consistent with these objectives.

Assessment

The presence of market failures may lead households to under-invest in residential energy efficiency. Consumers of energy may fail to take the full costs associated with energy consumption into account when energy prices fail to reflect the true costs to society associated with using a given resource. For example, consumers using electricity generated using coal may fail to consider the negative environmental consequences associated with CO₂ emissions from traditional coal-fired power plants. When consumers fail to consider all costs associated with energy consumption, too much energy is

consumed. One way to reduce energy consumption is to subsidize energy efficient technologies. A more economically efficient solution would be to increase the price associated with consuming energy generated using polluting resources. If the price of energy generated using polluting resources were to increase (through a tax on carbon, for example), consumers would have an added incentive to invest in energy efficiency without government subsidization. If energy prices were to increase generally, consumers would have an added economic incentive to invest in residential renewable energy equipment, such as solar panels.

The economic efficiency of a tax incentive can be evaluated based on how much additional investment is generated by the incentive. If, in this case, the tax credit goes to consumers that would have invested in energy efficient property without the tax credit, the tax credit would be a windfall benefit to the taxpayer, and not result in additional energy efficiency. If falling prices or state level incentives are factors that motivate residential energy efficiency, federal tax incentives may be redundant and have limited impacts on residential energy efficiency and renewable energy investments.

Selected Bibliography

Brown, Marilyn. "Market Failures and Barriers as a Basis for Clean Energy Policies," *Energy Policy*, v. 29. November 2001, pp. 1197-1207.

Clinch, J. Peter, and John D. Healy. "Cost-Benefit Analysis of Domestic Energy Efficiency." *Energy Policy*, v. 29. January 2000. pp.113-124.

Crandall-Hollick, Margot L., and Molly F. Sherlock. *Residential Energy Tax Credits: Overview and Analysis*. Library of Congress, Congressional Research Service Report R42089. Washington, DC: September 25, 2012.

Dastrup, Samuel R., Joshua Graff Zivin, et al. "Understanding the Solar Home Price Premium: Electricity Generation and "Green" Social Status." *European Economic Review*, v. 56. July 2012. pp. 961-963.

Fisher, Anthony C., and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17. August 1989, pp. 397-406.

Gillingham, Kenneth, Richard G Newell, and Karen Palmer. "Energy Efficiency Economics and Policy," *Annual Review of Resource Economics*, v. 1. June 2009. pp. 597-620.

Hassett, Kevin A., and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21. June 1993, pp. 710-716.

Hassett, Kevin A., and Gilbert E. Metcalf. "Energy Tax Credits and Residential Conservation Investment: Evidence From Panel Data," *Journal of Public Economics*, v. 57. 1995. pp. 201 - 217.

Howarth, Richard B., and Bo Anderson. "Market Barriers to Energy Efficiency." *Energy Economics*, October, 1993. pp. 262-292.

Internal Revenue Service (IRS), Statistics of Income (SOI), 2009 and IRS SOI Bulletin, Winter 2010.

Metcalf, Gilbert E. "Economics and Rational Conservation Policy." *Energy Policy*, v. 22. October 1994, pp. 819-825.

Metcalf, Gilbert E. and Kevin A. Hassett, "Measuring the Energy Savings from Home Improvement Investments: Evidence From Monthly Billing Data," *The Review of Economics and Statistics*, v. 81. August 1999. pp. 516-528.

Pimental, D., A. Pleasant, et al. "U.S. Energy Conservation and Efficiency: Benefits and Costs." *Energy, Development, and Sustainability*, v. 6. September 2004. pp. 279-306.

Sarzynski, Andrea, Jeremy Larrieu, and Gireesh Shrimali. "The Impact of State Financial Incentives on Market Deployment of Solar Technology." *Energy Policy*, v. 46. July 2012. pp. 550-557.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress.* Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Sherwood, Larry. U.S. Solar Market Trends 2011. Interstate Renewable Energy Council. August 2012.

Stern, Paul C. "Blind Spots in Policy Analysis: What Economics Doesn't Say About Energy Use." *Journal of Policy Analysis and Management*, v.5. April 1986, pp. 200-227.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources." *Energy Sources*, v. 16, 1996. pp. 257-268.

Sutherland, Ronald J. "The Economics of Energy Conservation Policy." *Energy Policy*, v. 24. April 1996, pp. 361-370.

Energy

TAX CREDIT FOR ENERGY EFFICIENCY IMPROVEMENTS TO EXISTING HOMES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.5	-	1.5
2012	1.3	-	1.3
2013	-	-	-
2014	-	-	-
2015	•	-	-

Authorization

Section 25C.

Description

In 2011, a 10 percent credit was available for the purchase of qualified residential energy efficiency property. The maximum credit amount was \$500, with additional credit limits for specific property, as noted below. The \$500 cap is a lifetime maximum. This credit replaced a 30 percent credit, up to \$1,500, that was available during 2009 and 2010.

Qualifying energy efficiency improvements include certain improvements to a building's envelope; heating, cooling, and water-heating equipment; and other energy efficiency property. Building envelope components may include qualifying energy-efficient property such as insulation, exterior windows and doors, metal roofs designed to reduce heat gain, and asphalt roofs with cooling granules. For building envelope components, labor costs are not eligible for a tax credit.

Eligible heating, cooling, and water-heating equipment includes natural gas, propane, or hot water boilers with an annual fuel utilization efficiency

(AFUE) rate of at least 95. Qualified natural gas, propane, or oil furnaces are those with an AFUE rate of at least 95. Electric heat pumps may qualify if they achieve the highest efficiency tier of Consortium for Energy Efficiency, as in effect on January 1, 2009. Electric heat pump water heaters may qualify if they have an energy factor of at least 2.0. Natural gas, propane, or oil water heaters with an energy factor of 0.82 or a thermal efficient of at least 90 percent also qualify. For a central air conditioner to qualify, it must have at least the highest efficiency tier as established by the Consortium for Energy Efficiency as in effect on January 1, 2009. Biomass fuel stoves and water heaters may also qualify. Finally, advanced main air circulating fans with an annual electricity use of no more than 2 percent of the total annual energy use of a furnace may also qualify for the tax credit. For heating, cooling, and water-heating equipment, labor and installation costs may be included as qualified expenditures.

In 2011, the allowable credit is limited for certain qualifying property. The tax credit for advanced main air circulating fans may not exceed \$50. The credit limit for qualified natural gas, propane, or oil furnaces or hot water boilers is \$150. The tax credit for each qualifying item of energy efficient property is \$300. The tax credit for windows is limited to \$200.

To be eligible for the credit, energy efficiency improvements must be made to property located in the United States serving as the taxpayer's primary residence. No credits are available for property placed in service after December 31, 2011.

Impact

Overall, these tax credits are intended to reduce the cost of installing energy-efficient residential property, encouraging homeowners to undertake qualifying improvements. In 2009, 6.7 million taxpayers claimed credits for residential energy efficiency. On average, each taxpayer claimed a credit of \$868 (these figures include tax credit claims for residential renewable energy property under IRC § 25D. Most of the claims, however, were for the tax credits discussed here, those awarded under IRC § 25C).

Most of these credits were claimed by higher income taxpayers. In 2009, 9.6 percent of tax returns filed claimed adjusted gross income (AGI) between \$100,000 and \$200,000. However, 26.6 percent of tax returns claiming residential energy credits were from the \$100,000 to \$200,000 income group, with this group claiming 30.4 percent of total credits claimed. While nearly half of tax returns filed in 2009 had an adjusted gross income

of less than \$30,000, only 7.5 percent of the returns claiming residential energy credits were from this income group. Only 4 percent of the total amount of residential energy credits claimed were claimed on returns with AGI of less than \$30,000.

Rationale

The current tax credit for nonbusiness energy property follows those introduced by the Energy Policy Act of 2005 (EPACT05; P.L. 109-58). With the enactment of EPACT the Internal Revenue Code was modified and a new section, IRC § 25C, added. Similar incentives for residential energy efficiency had been available following the enactment of the Energy Tax Act of 1978 (P.L. 95-618). These earlier incentives were expanded as part of the Crude Oil Windfall Profit Tax Act of 1980 (P.L. 96-223), but were allowed to expire as scheduled at the end of 1985.

Under EPACT05, individuals could claim a 10 percent tax credit for expenditures on qualified energy-efficient improvements to a building's envelope. Additionally, individuals could claim specified credits for expenditures on residential energy property (such as furnaces and boilers). The maximum credit for a taxpayer with respect to the same dwelling was limited to \$500 for 2006 and 2007, the two years when the credit was made available. No more than \$200 of the credit could be attributable to expenditures on windows. The credit limit of \$500 applied to the combined credit claimed in both 2006 and 2007, such that the total credit awarded for in both years was not to exceed \$500.

The tax credit amount for residential energy property expenditures was fixed according to each type of property. Advanced main air circulating fans were eligible for a \$50 credit, qualified natural gas, propane, or oil furnaces or hot water heaters were eligible for \$150 credit, and qualifying electric heat pump water heaters, electric heat pumps, geothermal heat pumps, central air conditioners, and natural gas, propane or oil water heaters were eligible for a \$300 credit. Once again, the maximum credit that could be claimed during the 2006 and 2007 tax years, combined, for any and all improvements under IRC § 25C, for each dwelling was \$500. The tax credit was allowed to expire after 2007 and was not available in the 2008 tax year.

The passage of the Emergency Economic Stabilization Act of 2008 (EESA; P.L. 110-343) reinstated and modified the tax credit for nonbusiness energy property under IRC § 25C for the 2009 tax year. EESA also added biomass fuel stoves to the list of property eligible for a \$300 credit.

Geothermal heat pumps were removed from the list of eligible property under IRC § 25C but were added to the list of eligible property under IRC § 25D (discussed elsewhere in this compendium). Before any claims for the credit could be made for the 2009 tax year, the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5) again changed the tax credit for nonbusiness energy property provided under IRC § 25C.

While ARRA did not introduce additional tax credits for energy efficient home improvements, ARRA expanded upon the credits first made available by EPACT and extended by EESA in a number of ways. For improvements made to a building's envelope, ARRA increased the credit rate to 30 percent of qualified expenditures. The credit for other noncommercial energy property also became 30 percent of expenditures, rather than making property subject to fixed credit amounts. ARRA also significantly increased the maximum credit amount, to \$1,500 combined for the 2009 and 2010 tax years. ARRA also changed the qualifying standards for various types of energy property.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the IRC § 25C tax credits for residential energy efficient property through 2011, but reduced the credit amounts to pre-2009 levels. P.L. 111-312 also reinstated the rule that expenditures made from subsidized energy financing are not qualified expenditures, increased certain efficiency standards for boilers and furnaces, and modified the efficiency standards for windows and doors to be consistent with Energy Star criteria.

Residential energy use for heating and cooling constitutes a significant fraction of total U.S. energy consumption. Some believe that residential efficiency improvements are the "low hanging fruit" when it comes to enhancing overall energy efficiency and reducing the nation's energy use. Congress enacted the residential energy efficiency tax credits in 2005 in response to the belief that many existing homes were not adequately insulated, and generally inefficient. The credits were expanded and extended as Congress continued to believe that residential energy efficiency represented an opportunity for cost-effective energy consumption reductions.

Assessment

The presence of market failures may lead households to under-invest in residential energy efficiency. Consumers of energy may fail to take the full costs associated with energy consumption into account when energy prices fail to reflect the true costs to society associated with using a given resource. For example, consumers using electricity generated using coal may fail to consider the negative environmental consequences associated with CO₂ emissions from traditional coal-fired power plants. When consumers fail to consider all costs associated with energy consumption, too much energy is consumed. One way to reduce energy consumption is to subsidize energy-efficient technologies. A more economically efficient solution would be to increase the price associated with consuming energy generated using polluting resources. If the price of energy generated using polluting resources were to increase (through a tax on carbon, for example), consumers would have an added incentive to invest in energy efficiency without government subsidization.

There are additional market barriers that may prevent investment in residential energy efficiency, and may help explain the so-called "energy paradox." The energy paradox describes the observation that individuals oftentimes pass on energy efficiency investments that have very high expected rates of return. One possible barrier to energy-efficient investments is the high first cost associated with such investments. If consumers are unable to obtain credit, or if there are credit market failures, the result may be an underinvestment in energy efficiency. Other barriers to energy efficiency investments include a lack of information about energy efficiency options or behavioral issues that lead consumers to choose inefficient technologies, as those technologies are what is most familiar to the consumer. While these market barriers may explain low levels of energy efficient product adoption, they do not necessitate a tax policy solution.

The economic efficiency of a tax inventive can be evaluated based on how much additional investment is generated by the incentive. If, in this case, the tax credit goes to consumers that would have invested in energy-efficient property without the tax credit, the tax credit would be a windfall benefit to the taxpayer, and not result in additional energy efficiency. Hasset and Metcalf (1995) present evidence that tax credits for energy efficiency do increase the probability that a taxpayer makes an energy efficiency investment. While it appears that tax credits for residential energy efficiency may lead to some additional investments, it is not clear how much of the tax credit rewards taxpayers who would have made investments without the tax incentive.

Selected Bibliography

Brown, Marilyn. "Market Failures and Barriers as a Basis for Clean Energy Policies," *Energy Policy*, v. 29. November 2001, pp. 1197-1207.

Clinch, J. Peter, and John D. Healy. "Cost-Benefit Analysis of Domestic Energy Efficiency." *Energy Policy*, v. 29. January 2000. pp.113-124.

Crandall-Hollick, Margot L., and Molly F. Sherlock. *Residential Energy Tax Credits: Overview and Analysis*. Library of Congress, Congressional Research Service Report R42089. Washington, DC: September 25, 2012.

Fisher, Anthony C., and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17. August 1989, pp. 397-406.

Gillingham, Kenneth, Richard G Newell, and Karen Palmer. "Energy Efficiency Economics and Policy," *Annual Review of Resource Economics*, v. 1. June 2009. pp. 597-620.

Hassett, Kevin A., and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21. June 1993, pp. 710-716.

Hassett, Kevin A., and Gilbert E. Metcalf. "Energy Tax Credits and Residential Conservation Investment: Evidence From Panel Data," *Journal of Public Economics*, v. 57. 1995. pp. 201 - 217.

Howarth, Richard B., and Bo Anderson. "Market Barriers to Energy Efficiency." *Energy Economics*, October, 1993. pp. 262-292.

Internal Revenue Service (IRS), Statistics of Income (SOI), 2009 and IRS SOI Bulletin, Winter 2010.

Metcalf, Gilbert E. "Economics and Rational Conservation Policy." *Energy Policy*, v. 22. October 1994, pp. 819-825.

Pimental, D., A. Pleasant, et al. "U.S. Energy Conservation and Efficiency: Benefits and Costs." *Energy, Development, and Sustainability*. v. 6, September 2004. pp. 279-306.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Stern, Paul C. "Blind Spots in Policy Analysis: What Economics Doesn't Say About Energy Use." *Journal of Policy Analysis and Management*, v.5. April 1986, pp. 200-227.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources." *Energy Sources*, v. 16, 1996. pp. 257-268.

Sutherland, Ronald J. "The Economics of Energy Conservation Policy." *Energy Policy*, v. 24. April 1996, pp. 361-370.

Energy

TAX CREDITS FOR ALCOHOL FUELS, ALTERNATIVE FUELS AND BIOFUELS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	_	0.2	0.2
2012	-	0.1	0.1
2013	-	(¹)	(¹)
2014	-	(¹)	(¹)
2015	-	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Note: The figures exclude the revenue loss from the equivalent excise tax credit. In addition to the amounts above, the excise tax credit for alcohol fuel mixtures is expected to reduce excise tax receipts by \$6.0 billion between fiscal years 2011 and 2015.

Authorization

Sections 40, 40A, 87, 6426, 6427.

Description

Over time, the tax code has provided various incentives for certain alternative fuels and biofuels, including ethanol, biodiesel, and other fuels discussed below. Most tax incentives for ethanol, other biofuels, and alternative fuels expired and the end of 2011. Incentives for biodiesel and alternative fuels may be extended as part of tax extenders.

Biodiesel and Renewable Diesel. Biodiesel is eligible for tax credits, similar in structure to those provided for ethanol (see below). Essentially, there are three tax credits for biodiesel: a credit for biodiesel fuel mixtures (blends of biodiesel and petroleum diesel), a credit for unblended (pure) biodiesel either used or sold at retail by the taxpayer, and a small biodiesel producer credit. Each gallon of biodiesel, including agri-biodiesel (biodiesel

made from virgin oils), may be eligible for a \$1.00 tax credit. The mixtures tax credit may be claimed as an instant excise tax credit against the 24.4ϕ per gallon tax on diesel blends. The mixtures credit is proportionate to the fraction of biodiesel in the mixture — a blend of 80% diesel with 20% virgin biodiesel would qualify for a 20ϕ per-gallon tax credit against the 24.4ϕ tax. The tax credits for biodiesel expired on January 1, 2012.

Additionally, an eligible small agri-biodiesel producer credit of 10¢ is available for each gallon of "qualified agri-biodiesel production." An eligible "small agri-biodiesel producer" is defined as any person who, at all times during the taxable year, has annual productive capacity for agri-biodiesel not in excess of 60,000,000 gallons. The term "qualified agri-biodiesel production" would be defined as any agri-biodiesel, not to exceed 15,000,000 gallons, that: (1) the producer sells during the taxable year for use by the purchaser (a) in the production of a qualified biodiesel mixture in the purchaser's trade or business, (b) as a fuel in a trade or business, or (c) for sale at retail to another person who places the agri-biodiesel in that person's fuel tank; or (2) the producer uses or sells for any of such purposes. Aggregation rules are provided for determining the 15,000,000 and 60,000,000 gallon limits, for applying the limits to passthrough entities, and for allocating productive capacity among multiple persons with interests in one facility, and authorize anti-abuse regulations. The eligible small agribiodiesel producer credit is effective for taxable years ending after August 8, 2005 and sunsets after December 31, 2011.

The tax code generally treats renewable diesel fuel like biodiesel for the purposes of the biodiesel fuels credit. Thus, renewable diesel sold or used after December 31, 2005 is eligible for a \$1.00 per gallon tax credit. The agri-biodiesel credit and small agri-biodiesel producer credit do not apply to renewable diesel.

Alternative Fuels and Alternative Fuel Mixtures. The tax code also provides tax credits for alternative fuels and alternative fuel mixtures. Specifically, there is a 50-cents-per gallon excise tax credit for certain alternative fuels used as fuel in a motor vehicle, motor boat, or airplane and a 50-cents-per gallon credit for alternative fuels mixed with a traditional fuel (gasoline, diesel or kerosene) for use as a fuel. Qualifying fuels include liquefied petroleum gas, P Series fuels, compressed or liquefied natural gas (CNG or LNG), any liquefied fuel derived from coal or peat through the Fischer-Tropsch process which meets certain carbon capture requirements, liquefied hydrocarbons derived from biomass, and liquefied hydrogen. The

alternative fuel and alternative fuel mixture credit is generally claimed as an excise tax credit. If the alternative fuel or alternative fuel mixture credits exceeded excise tax liability, the credits could be claimed as income tax credits or received as payments. This credit expired on December 31, 2011. The credit for liquefied hydrogen is an exception; it is scheduled to terminate after September 30, 2014.

Cellulosic Biofuels. Beginning on January 1, 2009, a new provision was introduced under IRC § 40: the cellulosic biofuel producer credit. This credit is a nonrefundable income tax credit for each gallon of qualified cellulosic fuel production of the producer for the taxable year. The amount of the credit per gallon is \$1.01, except in the case of cellulosic biofuel that is alcohol. In the case of cellulosic biofuel that is alcohol, the \$1.01 credit amount is reduced by (1) the credit amount applicable for such alcohol under the alcohol mixture credit as in effect at the time cellulosic biofuel is produced and (2) in the case of cellulosic biofuel that is ethanol, the credit amount for small ethanol producers as in effect at the time the cellulosic biofuel fuel is produced. The reduction applies regardless of whether the producer claims the alcohol mixture credit or small ethanol producer credit with respect to the cellulosic alcohol.

Qualified cellulosic biofuel production is any cellulosic biofuel which is produced by the taxpayer and which is sold by the taxpayer to another person for use by such other person in the production of a qualified biofuel fuel mixture in such person's trade or business (other than casual off-farm production), for use by such other person as a fuel in a trade or business, or who sells such biofuel at retail to another person and places such biofuel in the fuel tank of such other person, or is used by the producer for any purpose described in (a), (b), or (c) above. The credit is available for cellulosic biofuel produced after December 31, 2008 and before January 1, 2013.

In 2009, anticipated revenue losses associated with the alcohol fuel mixture credit and the cellulosic biofuel producer credit increased substantially as the paper industry began to claim tax credits for "black liquor." Black liquor is a byproduct of the paper pulping process that is used as a fuel to power paper manufacturing facilities. In 2009, paper manufacturers were able to claim the alcohol fuel mixture credit (IRC § 6426) for using black liquor. In June 2009, the IRS ruled that when the alcohol fuel mixture credit expired at the end of 2009, black liquor would qualify for the cellulosic biofuel producer credit (IRC § 40). When the alcohol fuel mixture tax credit was introduced, it was expected to result in

revenue losses of \$100 million annually. In the first half of 2009, \$2.5 billion in tax credits were claimed by the paper industry for use of black liquor. Under the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152), black liquor can no longer qualify for the cellulosic biofuel producer credit.

Alcohol Fuels. Tax credits for alcohol fuels expired at the end of 2011. Prior to their expiration, there were three income tax credits for alcohol-based motor fuels: the alcohol mixtures credit, the pure alcohol fuel credit, and the small ethanol producer credit. The alcohol mixture (or blender's) credit and the pure alcohol fuel credit was 45¢ per gallon of ethanol (60¢ for alcohol other than ethanol) of at least 190 proof. A reduced credit was available for alcohol with a proof of at least 150 but less than 190. No credit was available for alcohol that was less than 150 proof. The alcohol mixtures credit was available to the blender (who typically was either the refiner, wholesale distributor, or marketer). The pure (or "neat") alcohol credit could only be claimed by the consumer or retail seller.

The alcohol mixture credit is typically claimed as an instant excise tax credit. Excess credits may be claimed as an income tax credit or received as a direct payment. For 90/10 mixtures (90% gasoline, 10% ethanol) the excise tax credit is 4.5¢ per gallon of the blend. The 4.5¢ credit, which is equivalent to 45¢ per gallon of ethanol, is generally claimed up front on sales of gasoline loaded onto tanker trucks. Blenders prefer to claim the excise tax credit, rather than the income tax credit, because its benefits accrue immediately upon the purchase of the fuels for blending rather than when the tax return is filed. Also, the excise tax credit is not treated as taxable income, whereas the income tax credits have to be reported as taxable income, and are thus taxed.

For small ethanol producers, the law also provides for a production tax credit in the amount of 10¢ per gallon of ethanol produced and sold for use as a transportation fuel. This credit, called the "small ethanol producer credit," is limited to the first 15 million gallons of annual alcohol production for each small producer, defined as one with an annual production capacity of under 60 million gallons. This is in addition to any blender's tax credit claimed on the same fuel. A cooperative may pass through the small ethanol producer credit to its patrons. The small ethanol producer credit is available only as an income tax credit, not as an excise tax credit or direct payment.

Impact

Most of the alcohol fuel produced in the United States is ethanol; about 90% of it is produced from corn, which is the cheapest feedstock. The alcohol fuel and biofuel tax credits reduce the cost, encouraging the substitution of such fuels for conventional petroleum.

Production of ethanol as a motor fuel, most of which is a gasoline blend, has increased in recent decades. In 1979, approximately 40 million gallons were produced. By 2001, production had increased to 1.7 billion gallons. Production continued to increase through the 2000s, reaching 2.8 billion gallons in 2003, 3.9 billion gallons in 2005, 6.5 billion gallons in 2007, and 10.6 billion gallons in 2009.

Throughout the 1980s, 1990s, and into the 2000s, the excise tax exemption for ethanol was an important incentive for alcohol fuels. This exemption was replaced with the current tax credits in 2005 (this change is discussed below). In recent years, however, the renewable fuel standards (RFS) may have been a more important factor in promoting renewable fuels than tax incentives. The RFS was adopted in 2005 under the Energy Policy Act of 2005 (P.L. 109-58) and greatly expanded in 2007 under the Energy Security and Independence Act (P.L. 110-140). The expanded RFS (referred to as RFS2) required the annual use of 9 billion gallons of biofuels in 2008 and expanded the mandate to 36 billion gallons annually in 2022, of which no more than 15 billion gallons can be ethanol from corn starch, and no less than 16 billion must be from cellulosic biofuels. In addition, EISA carved out specific requirements for "other advanced biofuels" and biomass-based biodiesel. If mandates are driving investments in alcohol fuels and biofuels, tax incentives may provide a windfall benefit to taxpayers without resulting in additional alcohol fuel or biofuel production.

Rationale

Tax incentives for alcohol fuels were first enacted in 1980. These credits were designed to complement the excise tax exemption for alcohol fuels that had been enacted in 1978. Both the credits and excise-tax exemptions were enacted to encourage the substitution of alcohol fuels produced from renewables for petroleum-based gasoline and diesel. The underlying policy objective is, as with many other energy tax incentives, to reduce reliance on imported petroleum. In addition, Congress wanted to help support farm incomes by finding another market for corn, sugar, and other agricultural products that are the basic raw materials for alcohol production.

The rationale for the biodiesel tax credits is to provide tax incentives to create an environmentally friendly substitute for conventional diesel fuel, while also creating additional markets for farm products.

The alcohol fuels mixture credit and the pure alcohol fuels credit were enacted as part of the Crude Oil Windfall Profit Tax Act of 1980 (P.L. 96-223), at the rate of 40¢ per gallon for alcohol that was 190 proof or more, and 30¢ per gallon for alcohol between 150 and 190 proof. The credits were increased in 1982 and 1984. The Omnibus Reconciliation Act of 1990 (P.L. 101-508) reduced the credits to 54¢ and 40¢ and introduced the 10¢ pergallon small ethanol producer credit. The Transportation Equity Act for the 21st Century (P.L. 105-178) reduced the blender's tax credit from 54¢ to its current rate of 52¢, and to 51¢ beginning in 2005.

The American Jobs Creation Act of 2004 (P.L. 108-357) reformed the tax incentives for fuel ethanol, by, in effect, treating the tax credits as if they were payments of excise tax liability. The rationale for the restructuring was to increase revenues for the Highway Trust Fund (HTF). Consumption of fuel ethanol blends results in revenue losses to the HTF in the amount of the 5.2¢ exemption times the quantity of fuel ethanol blends used. In addition, under tax code sections enacted in 1990, 2.5¢ of the taxable portion of the tax (the 13.2¢ for 90/10 fuel ethanol blends) was retained in the general fund. Thus, in total, the HTF lost, under previous law, 7.7¢/gallon of fuel ethanol blends (5.2¢ plus 2.5¢). Under the restructured incentives, tax revenue losses accrue to the general fund, rather than the HTF. The American Jobs Creation Act of 2004 also introduced the biodiesel fuel tax credits, and allowed, for the first time, the small ethanol producer's tax credit to flow through to members of a farmers' cooperative.

The Energy Policy Act of 2005 (P.L. 109-58) made several amendments to the tax subsidies for ethanol and biodiesel fuels. First, it raised the maximum annual alcohol production capacity for an eligible small ethanol producer from 30 million gallons to 60 million gallons. The provision also modified the election by a cooperative to allocate the credit to its patrons. Second, the Energy Policy Act of 2005 added the 10¢/gallon "eligible small agri-biodiesel producer credit" to the list of credits that comprise the biodiesel fuels credit. The 2005 Energy Policy Act also permitted cooperative organizations to elect to apportion the eligible small agribiodiesel producer credit among their patrons, and set forth the election procedure. Another provision extended the existing income tax credit, excise tax credit, and payment incentives for biodiesel (which were enacted in 2004

under the "Jobs Bill") through December 31, 2010. The Energy Policy Act of 2005 also introduced the tax credit for alternative fuels and alternative fuel mixtures.

The Tax Relief and Health Care Act of 2006 (P.L. 109-432) 1) reduced the excise tax on ethanol and methanol fuels derived from coal; 2) extended the 54¢/gallon tariff on imported ethanol through January 1, 2009; and 3) allowed 50% of the capital costs of cellulosic ethanol plants to be expensed, deducted in the first year. The Food, Conservation, and Energy Act of 2008, (P.L. 110-234, also known as the "farm bill"), made several changes to the tax incentives for alcohol fuels: First, it reduced the 51¢ ethanol tax credit, and 5.1¢ excise tax equivalent to 45¢ per gallon (equivalent to 4.5¢ per gallon of the 90/10 mixture) when total ethanol use (including cellulosic ethanol) reaches 7.5 billion gallons. This begins in 2009, and there is a lag of one year: a determination in 2008 would reduce the tax credits beginning in 2009. Second, the farm bill created a new, temporary cellulosic biofuels production tax credit for up to \$1.01 per gallon, available through December 31, 2012. Third, it extended the tariff on imported ethanol another two years, through December 31, 2010. Finally, the farm bill reduced the fraction of an ethanol fuel mixture consisting of a denaturant, which effectively increases the fraction of a mixture which must consist of ethanol.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expanded the 50% expensing of ethanol plant costs to include cellulosic biofuels generally, rather than only cellulosic ethanol. The law also 1) extends the \$1.00 per gallon production tax credit for biodiesel and the 10¢/gallon credit for small biodiesel producers through 2009, 2) extends the \$1.00 per gallon production tax credit for diesel fuel created from biomass, 3) eliminates the current-law disparity in credit for biodiesel and agribiodiesel, and 4) eliminates the requirement that renewable diesel fuel must be produced using a thermal depolymerization process. As a result, the credit will be available for any diesel fuel created from biomass without regard to the process used, so long as the fuel is usable as home heating oil, as a fuel in vehicles, or as aviation jet fuel. Diesel fuel created by co-processing biomass with other feedstocks (e.g., petroleum) will be eligible for the 50¢/gallon tax credit for alternative fuels. Biodiesel imported and sold for export will not be eligible for the credit effective May 15, 2008. The Emergency Economic Stabilization Act of 2008 also extended through 2009 the excise tax credit for alternative fuel and fuel mixtures.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended current income tax credits for alcohol fuels along with excise tax credits and outlay payments for fuel mixtures. Under P.L. 111-312, the production tax credit for biodiesel and renewable diesel, the small agri-biodiesel producer credit, and the the excise tax credits and outlay payments for alternative fuel and alternative fuel mixtures, were extended through December 31, 2011.

Assessment

Tax credits for alcohol fuels, biofuels, and other alternative fuels are motivated by a desire to reduce dependence on petroleum imports (enhance national energy security), address environmental concerns, and maintain farm incomes. While the use of biofuels and alternative fuels continues to increase, offsetting domestic petroleum consumption and providing some environmental gains, it is not clear that the tax incentives are responsible for driving this change. Renewable fuel standards and blend mandates requiring that certain amounts of ethanol and biofuels may be driving domestic production. If non-tax policies are responsible for enhancing ethanol and biofuel production, and tax policies fail to induce additional production, the tax credits provide a windfall to taxpayers and are thus economically inefficient.

Generally, tax subsidies are an economically inefficient mechanism for addressing environmental concerns. The use of petroleum as a fuel generates negative external costs by way of pollution, congestion, and energy security concerns. Since consumers generally do not consider these negative external costs when making petroleum consumption choices, the market will result in too much petroleum consumption. If petroleum prices were increased to fully reflect these negative external costs, petroleum consumption would fall to the economically efficient level. Policymakers often choose to subsidize alternatives to pollution generating activities, rather than directly taxing the polluting activity. While subsidies divert production and consumption toward the less-polluting alternative, subsidies that promote less-polluting alternatives are less economically efficient than taxes levied directly on polluting activities. Further, subsidies that promote certain fuels can distort market decisions and lead to an inefficient allocation of resources.

Selected Bibliography

Bracmort, Kelsi, Randy Schnepf, Megan Stubbs, and Brent D. Yacobucci. *Cellulosic Biofuels: Analysis of Policy Issues for Congress.* Library of Congress, Congressional Research Service Report RL34738. Washington, DC: October 14, 2010.

Cobb, John. "Mitigating the Unintended Consequences of Biofuel Tax Credits." *Harvard Journal on Legislation*. Vol. 49 (Summer 2012), pp. 451-477.

Congressional Budget Office. Using Biofuel Tax Credits to Achieve Energy and Environmental Policy Goals. July 2010.

Cunningham, Lynn J., Beth A. Roberts, Bill Canis, and Brent D. Yacobucci. *Alternative Fuel and Advanced Vehicle Technology Incentives: A Summary of Federal Programs*. Library of Congress. Congressional Research Service Report R42566. Washington, DC: June 12, 2012.

De Gorter, Harry and David R. Just. "The Welfare Economics of an Excise-Tax Exemption for Biofuels and Interaction with Farm Subsidies." *American Journal of Agricultural Economics*. Vol. 91 (May 2009), pp. 477-488.

Kaplow, Doug. Biofuels — At What Costs? Government Support for Ethanol and Biodiesel in the United States. Prepared for the Global Studies Initiative of the International Institute for Sustainable Development. October 2006.

Metcalf, Gilbert E. "Using Tax Expenditures to Achieve Energy Policy Goals." *American Economic Review: Papers and Proceedings*. Vol. 98 (May 2008). pp. 90-94.

Organization for Economic Co-Operation and Development. *Economic Assessment of Biofuels Support Policies*. 2008.

The Renewable Fuels Association. *Industry Outlook: 2010.* February 2010.

Schnepf, Randy. Agriculture-Based Biofuels: Overview and Emerging Issues. Library of Congress, Congressional Research Service Report R41282. Washington, DC: January 20, 2012.

Schnepf, Randy and Brent D. Yacobucci. *Renewable Fuel Standard* (RFS): Overview and Issues. Library of Congress, Congressional Research Service Report R40155. Washington, DC: January 23, 2012.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources. Library of Congress, Congressional Research Service Report R41953. Washington, DC: September 18, 2012.

Sherlock, Molly F., and Margot L. Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress.* Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Sullivan, Martin A. "IRS Allows New \$25 Billion Tax Break for Paper Industry," *Tax Notes*. October 19, 2009, pp. 271-272.

- U.S. Department of Energy. Breaking the Biological Barriers to Cellulosic Ethanol: A Joint Research Agenda. DOE/SC-0095. June 2006.
- U.S. Government Accountability Office. *Biofuels: Potential Effects and Challenges of Required Increases in Production and Use.* GAO-09-446. August 2009.
- U.S. General Accounting Office. Biofuels: DOE Lacks A Strategic Approach to Coordinate Increasing Production With Infrastructure Development Vehicle Needs. GAO-07-713. June 2007.

Yacobucci, Brent. Alternative Fuels and Advanced Technology Vehicles: Issues in Congress. Library of Congress, Congressional Research Service Report R40168. Washington, DC: January 19, 2012.

Energy

TAX CREDITS FOR ALTERNATIVE-TECHNOLOGY AND PLUG-IN ELECTRIC VEHICLES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	0.1	0.1
2012	0.1	0.2	0.3
2013	0.1	0.3	0.4
2014	0.1	0.4	0.5
2015	0.1	0.4	0.5

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 30, 30B, and 30D.

Description

In recent years, various tax incentives have been available for alternative technology vehicles, including hybrid vehicles, plug-in or all electric vehicles, advanced lean-burn technology vehicles, alternative fuel vehicles, and fuel-cell vehicles. Tax credits for converting a motor vehicle into a plug-in electric-drive vehicle have also been available. The credits are generally available for vehicles purchased after 2005, and terminate in 2009, 2010, 2011, or 2014, depending on the type of technology or vehicle.

Generally, vehicle credits are available to the taxpayer purchasing the vehicle for use. Lessors of a vehicle subject to a lease may also qualify for the tax credit. If the vehicle is purchased or leased by a tax-exempt organization, the seller of the vehicle may be able to claim the credit so long as the seller clearly discloses the amount of the allowable credit to the purchaser. For businesses, the portion of the credit attributable to vehicles of a character subject to depreciation allowances is treated as part of the general business credit.

Hybrid Vehicles and Advanced Lean-Burn Technology Vehicles. For hybrid and advanced lean-burn technology vehicles weighing less than 8,500 pounds (i.e., for passenger cars or light trucks), the total credit consists of two components: a fuel economy credit, which ranges from \$400-\$2,400 depending on the rated city fuel economy of the vehicle; and a conservation credit, which ranges from \$250-\$1,000 depending on estimated lifetime fuel savings. The conservation credit is based on the estimated lifetime fuel savings between the two vehicles assumed to travel 120,000 miles. For both components, the comparison is made with a comparable 2002 model year standard gasoline-powered vehicle. For advanced lean-burn vehicles, the amount of the credit is adjusted to account for the different BTU content of fuel if the fuel used is not gasoline.

In the case of hybrids and advanced lean-burn vehicles, there is a cumulative 60,000 vehicle limit imposed on the number of vehicles (all models of the hybrid or lean-burn type) sold by each manufacturer that are eligible for the credit. Once the cumulative limit is reached for either technology, the credit for that manufacturer begins to phase out during the second quarter after the limit is reached. The credit is completely phased out, such that no credit is available, after the sixth quarter (four quarters after the phase-out begins). The credit is available for imported vehicles, but no credit is allowed for any vehicle used predominately outside of the United States.

Hybrid vehicles are defined as motor vehicles that draw propulsion energy from two onboard sources of stored energy: an internal combustion or heat engine using consumable fuel, and a rechargeable energy storage system. A qualifying hybrid vehicle must meet the applicable regulations under the Clean Air Act. For a vehicle with a gross vehicle weight rating of 6,000 pounds or less (passenger cars and many light trucks), the applicable emissions standards are the Bin 5 Tier II emissions standards of the Clean Air Act. For a vehicle with a gross vehicle weight rating greater than 6,000 pounds and less than or equal to 8,500 pounds, the applicable emissions standards are the Bin 8 Tier II emissions standards.

A qualifying advanced lean-burn technology motor vehicle is one that incorporates direct injection, and achieves at least 125% of the 2002 model year city fuel economy. The 2004 and later model vehicles must meet or exceed certain Environmental Protection Agency emissions standards. The emissions standards for advanced lean-burn vehicles are the same as those for hybrids.

The tax credit for hybrid vehicles is available for vehicles purchased after December 31, 2005, and before January 1, 2011. Qualifying advanced lean-burn technology motor vehicles also must be placed in service before January 1, 2011 to qualify.

Hybrids weighing more than 8,500 pounds, or so-called heavy hybrids, were also be eligible for a tax credit under section 30B through December 31, 2009. The amount of the credit for heavy hybrids was determined according the estimated increase in fuel economy, relative to a comparable vehicle powered solely by a gasoline or diesel internal combustion engine, and the incremental cost of the hybrid vehicle.

Alternative-Fuel Vehicles. The credit for new qualified alternative fuel motor vehicles is generally equal to 50% of the incremental cost of the technology, relative to a conventionally powered vehicle of the same class and size. A maximum allowable incremental cost is determined according to the vehicle's weight. A bonus credit of 30% is also provided for alternative fuel vehicles meeting certain EPA emissions standards. In all cases, the credit cannot exceed \$4,000-\$32,000 per vehicle, with higher credits allowed for heavier vehicles.

A new qualified alternative-fuel motor vehicle is defined as a motor vehicle that is capable of operating on an alternative fuel, defined as compressed natural gas, liquefied natural gas, liquefied petroleum gas, hydrogen, and any liquid at least 85 percent of the volume of which consists of methanol. A reduced credit is available for mixed-fuel (flexible-fuel) vehicles

The new credit for alternative-fuel vehicles applies to purchases made between January 1, 2006, and December 31, 2010.

Fuel Cell Vehicles. The credit for fuel cell vehicles ranges from \$8,000 (\$4,000 if placed in service after 2009) to \$40,000, depending on vehicle weight. If the new qualified fuel cell motor vehicle is a passenger automobile or light truck, the amount of the credit is increased if certain fuel efficiencies are met based on the 2002 model year city fuel economy for specified weight classes.

A new qualified fuel cell motor vehicle is defined as a motor vehicle that (1) is propelled by power derived from one or more cells that convert chemical energy into electricity by combining oxygen and hydrogen fuel that is stored on board the vehicle in any form, and (2) in the case of a passenger automobile or light truck, receives an EPA certification.

The tax credit for fuel cell vehicles applies to purchases made between January 1, 2006 and December 31, 2014.

Plug-In Electric-Drive Motor Vehicles. Section 30D provides a tax credit for qualified plug-in electric-drive motor vehicles. Beginning in 2010, a vehicle which draws propulsion from a battery with a capacity of at least 5 kWh is eligible for a base credit of \$2,500. This credit increases for vehicles propelled by batteries with a higher capacity. Specifically, an additional \$417 credit is awarded for each kWh of capacity above 5 kWh. The maximum credit amount is \$7,500 (prior to 2010 the credit limit was higher, up to \$15,000, for qualifying heavy vehicles).

The plug-in electric-drive vehicle credit begins to phase out for a particular manufacturer once 200,000 qualifying vehicles have been sold. The credit begins to phase out in the second quarter after the quarter in which the manufacturer reaches the limit. The credit then phases out over four quarters, such that the credit is fully phased out by the sixth quarter after the manufacturer reaches the limit. Prior to 2010, there was a 250,000 crediteligible vehicle limit. This was replaced with the per-manufacturer limit beginning in 2010.

To the extent that a vehicle is eligible for the plug-in electric-drive vehicle credit under section 30D, the same vehicle is not eligible for a tax credit as a hybrid vehicle under section 30B.

Low-Speed Vehicles and Electric Plug-In Conversion. A 10% credit, up to \$2,500, is available for the cost of electric-drive low-speed neighborhood vehicle, motorcycle and three-wheeled vehicles. A 10% credit, up to \$4,000, is available for conversion to a plug-in electric drive vehicle. These credits are available through December 31, 2011.

Impact

The market share for hybrids and other alternative technology vehicles has increased in recent years. Federal tax incentives may have been partially responsible for this increase. Additionally, numerous federal, state, and local government programs (such as fleet requirements) have stimulated the use of hybrids (and, in some cases, alternative-fuel vehicles). While government incentives may have been partially responsible for the increased prevalence of hybrids, plug-in electric, and other alternative technology vehicles,

increasing gas prices also played a significant role in increasing the demand for fuel efficient or non-gasoline powered vehicles.

The primary goal of tax credits for alternative technology vehicles is to reduce petroleum use. Fuel consumed in conventional motor vehicles accounts for the largest fraction of total petroleum consumption in the United States and is a leading source of dependence on foreign oil. Alternative technology vehicles are generally less polluting and producing significantly lower fuel cycle emissions when compared to equivalently sized conventional vehicles. While the adoption of hybrids, plug-in electric, and other alternative technology vehicles is associated with decreased gasoline consumption and reduced CO₂ emissions, the role of tax credits in driving this change is likely to be small. Relative to rising gas prices, federal tax incentives played a small role in increasing the market share of hybrid, plugin and all electric, and alternative-technology vehicles.

Rationale

Section 30B was enacted as part of the Energy Policy Act of 2005 (P.L. 109-58) to stimulate the demand for more fuel-efficient and environmentally clean automobiles. Section 30D was enacted by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343), to further stimulate the demand for another type of alternative-technology vehicle: the plug-in electric-drive vehicle, which is envisioned as a more fuel-efficient and environmentally clean automobile as compared with conventional vehicles. The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) modified the section 30D tax credit and created a new credit (section 30) for qualified low-speed and two- or three-wheeled plug-in vehicles (this provision is addressed elsewhere in this compendium).

Congress believed that further investments in hybrids and alternative technology vehicles are necessary to transform the mode of transportation in the United States toward clean, fuel-efficient vehicles, reducing reliance on imported petroleum. In this regard, hybrids, plug-in electric, and alternative-fuel vehicles (e.g., ethanol fueled vehicles) were viewed as short-term options; advanced lean-burn and fuel cell vehicles were viewed as long-term options.

The credits initially enacted in 2005 expanded upon previous incentives for hybrid and alternative-technology vehicles. The Energy Policy Act of 1992 (P.L. 102-486) introduced a \$2,000 tax deduction for passenger vehicles that run on alternative fuels (up to a \$50,000 for heavy-duty trucks),

and also established a tax credit for electric vehicles. Under an administrative ruling by the Internal Revenue Service (Revenue Procedure 2002-42), purchasers of model year 2000-2006 hybrid vehicles were allowed to claim the clean-fuel vehicle deduction, which expired on January 1, 2006.

Assessment

Tax incentives for alternative technology vehicles may help address market failures in automobile markets. Specifically, since consumers fail to consider the negative environmental and potential energy security concerns associated with conventional gasoline- and diesel-fueled vehicles, the market may provide an inefficiently high level of such products. One way to address the negative externalities associated with fuel consumption through automobile use is to reduce the price of alternative technology vehicles.

There are other barriers to adoption of hybrid and other alternative-technology vehicles a tax credit might address. These include, for example, (1) the high first cost associated with hybrid and alternative-technology vehicles, (2) the volatility of fuel prices, (3) technology risks associated with new, unfamiliar and unproven technologies, and (4) a lack of complementary infrastructure (such as electric charging stations or alternative-fuel refueling facilities).

Because tax credits for alternative technology vehicles reduce the price of such vehicles relative to gasoline and diesel powered alternatives, such tax credits are intended to eliminate the previously noted market failures and market barriers. A tax credit approach, however, may not be the most economically efficient mechanism for addressing the negative externalities associated with gasoline consumption and market barriers to hybrid and alternative-technology vehicle adoption. Relative to tax credits, rising gas prices have played a larger role in increasing consumer demand alternative technology vehicles. Taxing gasoline directly—taxing the activity associated with the negative externality—is more economically efficient than subsidizing the purchase of select vehicles.

There are also equity concerns associated with the credits for alternative technology vehicles. These credits tend to be claimed by higher income taxpayers. Given the evidence suggesting that tax incentives play a relatively small role in determining hybrid sales, it is likely that many of these tax credits were received by individuals who would have purchased the vehicle without the tax incentive. This would represent a windfall gain to the higher income consumers who would have purchased without the tax incentive.

Concerns surrounding windfall gains to purchasers of alternative technology vehicles may be exacerbated by the incidence of the tax credit. Economic theory suggests that it does not matter whether consumers or producers bear the statutory incidence of a tax incentive, since economic incidence depends on each party's relative responsiveness to changes in price. Producers can be expected to capture some of the tax benefit through higher prices. Some empirical evidence suggests that the economic incidence of the tax credit for hybrids was split between consumers and producers. There is also evidence that suggests that consumers were able keep more of the tax credit than theory would have predicted in the hybrid market. If tax benefits are already disproportionately benefitting high-income consumers, concerns over the equity attributes of the tax incentive remain.

Selected Bibliography

Beresteanu, Arie and Shanjun Li, "Gasoline Prices, Government Support, and the Demand for Hybrid Vehicles in the U.S.," *International Economic Review*, 52, no. 1 (February 2011), pp. 161 – 182.

Diamond, David, "The Impact of Government Incentives for Hybrid-Electric Vehicles: Evidence from US States," *Energy Policy*, 37 (2009), pp. 972-983.

Chupp, Andrew B., Katie Myles, and E. Frank Stephenson, "The Tax Incidence of Hybrid Automobile Tax Preferences," *Public Finance Review*, 38, no. 1 (January 2010), pp. 120 - 133.

Congressional Budget Office. Effects of Federal Tax Credits for the Purchase of Electric Vehicles. September, 2012.

Cunningham, Lynn J., Beth A. Roberts, Bill Canis, and Brent D. Yacobucci. Alternative Fuel and Advanced Vehicle Technology Incentives: A Summary of Federal Programs. Library of Congress. Congressional Research Service Report R42566. Washington, DC: June 12, 2012.

Fisher, Anthony C., and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17 (August 1989), pp. 397-406.

Graham, R. Comparing the Benefits and Impact of Hybrid Electric Vehicle Options. EPRI Report # 1000349. July 2001.

Hassett, Kevin A., and Gilbert E. Metcalf. "Energy Conservation Investment: Do Consumers Discount the Future Correctly?" *Energy Policy*, v. 21. June 1993, pp. 710-716.

Heutel, Garth and Erich Muehlegger. Consumer Learning and Hybrid Vehicle Adoption. Harvard University John F. Kennedy School of Government, Working Paper no. 10-013, April 2010.

Sallee, James M., "The Surprising Incidence of Tax Credits for the Toyota Prius," *American Economic Journal: Economic Policy* (forthcoming).

Sallee, James M., "The Taxation of Fuel Economy," paper presented at the National Bureau of Economic Research Tax Policy and the Economy Conference, Washington, DC, September 23, 2010.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

Sutherland, Ronald J. "Energy Efficiency or the Efficient Use of Energy Resources." *Energy Sources*, v. 16 (1994). pp. 257-268.

Sutherland, Ronald J. "The Economics of Energy Conservation Policy." *Energy Policy*, v. 24. (April 1996), pp. 361-370.

Yacobucci, Brent. Alternative Fuels and Advanced Technology Vehicles: Issues in Congress. Library of Congress, Congressional Research Service Report R40168. Washington, DC: January 19, 2012.

Energy

TAX CREDIT FOR INVESTMENTS IN SOLAR, GEOTHERMAL, FUEL CELLS, AND MICROTURBINES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	0.4	0.5
2012	0.1	0.4	0.5
2013	0.1	0.4	0.5
2014	0.1	0.4	0.5
2015	0.1	0.4	0.5

Authorization

Sections 48.

Description

Section 48 provides a non-refundable income tax credit for business investments in solar, fuel cells, small wind turbines (up to 100 kilowatt (kW) in capacity), geothermal systems, microturbines, and combined heat and power (CHP). Solar, fuel cell, and small wind turbined investments qualify for a 30% credit. The tax credit for investments in geothermal systems, microturbines, and CHP is 10%. For fuel cells, the 30% credit is limited to \$1,500 per 0.5 kW of capacity. For microturbines, the credit is limited to \$200 per kW of capacity.

Solar equipment is defined as a system that generates electricity directly (photovoltaic systems), or that heats, cools, or provides hot water in a building. It also includes equipment that illuminates the inside of a structure using fiber-optic distributed sunlight. Solar property used for heating a swimming pool is not eligible for the solar credit.

Eligible geothermal property includes geothermal heat pumps and equipment used to produce, distribute, or use energy derived from a geothermal deposit. Electric transmission property does not qualify.

Generally, the investment tax credit (ITC), or energy credit, is available for property placed in service by December 31, 2016. For geothermal property, except geothermal heat pumps, there is no sunset date for the credit (the credit for geothermal heat pumps expires at the end of 2016). In 2017, the credit rate for solar property becomes 10%.

The energy credit is part of the general business credit. Unused credits may be carried back for one year and carried forward up to 20 years. The taxpayer's basis in property eligible for the ITC must be reduced by one-half of the credit amount. For construction projects that are two or more years, credits may be claimed as construction progresses rather than at the time the property is placed in service.

Provisions enacted as part of the American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5) allow taxpayers to elect to claim an ITC for property that otherwise would have qualified for the renewable energy production tax credit (PTC). This option is available for wind property placed in service by December 31, 2012, and other PTC-eligible technologies placed in service by December 31, 2013. The renewable energy PTC is discussed elsewhere in this compendium.

Impact

The energy tax credits lower the cost of, and increase the rate of return to, investing in renewable energy equipment. Typically, renewable energy equipment has a lower return due to higher capital costs, as compared to conventional energy equipment. Even with the ITC, and recent technological innovations that have reduced costs, the cost of electricity produced using renewable energy resources tends to be higher than the cost of electricity produced using conventional alternatives, such as coal and natural gas.

In recent years, installations of renewable technologies have increased. In particular, there has been rapid growth in solar PV non-residential installations capacity between 2000 and 2008. In 2009, the growth rate of non-residential solar PV installation capacity slowed. Uncertainty surrounding the future of the ITC may have been responsible. As the ITC was set to return to 10% in 2009, developers rushed to complete installations before the end of 2008. While the 30% credit rate was ultimately extended

by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343), the investment climate had changed and obtaining financing for new projects was difficult. The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) attempted to address financing difficulties by allowing taxpayers eligible for the ITC to receive a grant from the Treasury in lieu of tax payments (the Section 1603 grant in lieu of tax credits). The Section 1603 grant option, declining costs for installed solar capacity, federal tax incentives, and state-level incentives are all factors that may have contributed to continued growth in installed capacity in recent years. Between 2010 and 2011, annual installed capacity of solar PV systems grew by 109%. The Section 1603 grant option is not available for property where construction began after December 31, 2011, although the underlying tax credits remain available.

Rationale

The business energy tax credits were established as part of the Energy Tax Act of 1978 (P.L. 95-618). The rationale behind the credits at the time of enactment was primarily to reduce U.S. consumption of oil and natural gas by encouraging the commercialization of renewable energy technologies, to reduce dependence on imported oil and enhance national security.

The 1980 Windfall Profit Tax Act extended the credit for solar and geothermal equipment, raised their credit rates from 10% to 15%, repealed the refundability of the credit for solar and wind energy equipment, and extended the credit beyond 1985 for certain long-term projects. The Tax Reform Act of 1986 (P.L. 99-514) retroactively extended the credits for solar, geothermal, ocean thermal, and biomass equipment through 1988, at lower rates.

The Miscellaneous Revenue Act of 1988 (P.L. 100-647) extended the solar, geothermal, and biomass credits at their 1988 rates—ocean thermal was not extended. The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) extended the credits for solar and geothermal and reinstated the credit for ocean thermal equipment, through December 31, 1991. The credit for biomass equipment was not extended. The Tax Extension Act of 1991 (P.L. 102-227) extended the credits for solar and geothermal through June 30, 1992. The Energy Policy Act of 1992 (P.L. 102-486) made the credits for solar and geothermal equipment permanent.

Thus, the credits for solar and geothermal equipment are what remained of the business energy tax credits enacted under the Energy Tax Act of 1978.

Prior to the Energy Policy Act of 2005, and with the reforestation credit and the rehabilitation credit, they were the sole exceptions to the repeal of the investment tax credits under the Tax Reform Act of 1986. The Energy Policy Act of 2005 raised the credit rate for solar equipment from 10% to 30%, and expanded it to fiber optic distributed sunlighting, fuel cells, and microturbines. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the 30% tax credit for solar and the 10% credit for microturbines by one year, through 2008.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extends the 30% investment tax credit for solar energy property and qualified fuel cell property, as well as the 10% investment tax credit for micro turbines, for eight years, through December 31, 2016. P.L. 110-343 added small commercial wind, geothermal heat pumps, and combined heat and power systems (at a 10% credit rate) as a category of qualified investment. P.L. 110-343 also increases the \$500 per half kilowatt of capacity cap for qualified fuel cells to \$1,500 per half kilowatt and allows these credits to be used to offset the alternative minimum tax (AMT).

The American Recovery and Reinvestment Act of 2009 (ARRA; P.L. 111-5) made additional modifications to the ITC. First, credit limitations for entities receiving subsidized financing were removed. Second, dollar limitations for specific types of property were eliminated. Previously, the 30% credit for small wind property was capped at \$4,000, the 30% credit for solar water heating property had been capped at \$2,000, and the 10% credit for geothermal heat pumps had been capped at \$2,000. Under ARRA, ITC-eligible property was able to elect to receive a Section 1603 grant from the Treasury in lieu of the ITC. This option was scheduled to expire at the end of 2010, but was extended through the end of 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). ARRA also contained provisions allowing PTC-eligible property to instead claim the ITC for property placed in service before the PTC expires.

Assessment

Conventional energy technologies, specifically those that rely on fossil energy sources, often generate negative externalities. Since users of these technologies fail to consider the full cost, including environmental and energy security costs of such technologies when making consumption decisions, the market provides an inefficiently high level of conventional energy technologies. One way to address this market failure, and potentially

enhance economic efficiency, is to subsidize clean, renewable energy alternatives. This option, however, reduces federal tax revenue. A more economically efficient solution would be to tax the negative externality directly (i.e., impose a tax on carbon).

The economic efficiency of investment tax credits for renewable energy is reduced if such credits fail to directly lead users to adopt targeted technologies. If taxpayers would have invested in solar capacity, or other renewable technologies, without the tax credit, the tax credit provides a windfall benefit to the taxpayer without increasing installed renewable generation capacity.

Generally, investment tax incentives create economic distortions by directing investment and resources toward specific technologies and away from what would otherwise be the most productive use. The ITC for renewable energy specifies eligible technologies and credit rates. If instead, the price of conventional energy resources were to increase, the market would select the most viable renewable or other energy alternatives.

Finally, high capital costs for renewable and alternative energy technologies and market uncertainty are not energy market failures. Nonetheless, high costs and technology uncertainty do act as barriers to the development and commercialization of renewable technologies. The incentive effects of the ITC might lead to technological innovations that reduce the cost of subsidized technologies, ultimately making such technologies more competitive.

Selected Bibliography

Brown, Phillip and Gene Whitney. U.S. Renewable Electricity Generation: Resources and Challenges. Library of Congress, Congressional Research Service Report R41954. Washington, DC: August 5, 2011.

Congressional Budget Office. Federal Financial Support for the Development and Production of Fuels and Energy Technologies. Issue Brief. Washington, DC: March 2012.

Fisher, Anthony C., and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17. August 1989, pp. 397-406.

Hasset, Kevin A., and Gilbert E. Metcalf. "The Whys and Hows of Energy Taxes." *Issues in Science and Technology*. v. 24, Winter 2008, pp. 45-51.

- Inyan, S., L. Sunganthi, and Anand A. Samuel. "Energy Models for Commercial Energy Production and Substitution of Renewable Energy Resources." *Energy Policy*, v.34. November 2006, pp. 26-40.
- Kobos, Peter H., Jon D. Erickson, and Thomas E. Drennen. "Technological Learning and Renewable Energy Costs: Implications for US Renewable Energy Policy." *Energy Policy*, v. 34, September 2006, pp.16-45.
- Metcalf, Gilbert E. "Federal Tax Policy Towards Energy." *Tax Policy and the Economy, Volume 21*, edited by James M. Poterba. National Bureau of Economic Research, 2007, pp. 145 184.
- Metcalf, Gilbert E. "Investment in Energy Infrastructure and the Tax Code." *Tax Policy and the Economy, Volume 24*, edited by Jeffery R. Brown. National Bureau of Economic Research, 2010, pp. 1-33.
- Sav, G. Thomas. "Tax Incentives for Innovative Energy Sources: Extensions of E-K Complementarity," *Public Finance Quarterly*, v. 15. October 1987, pp. 417-427.
- Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.
- Sherlock, Molly F. Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources. Library of Congress, Congressional Research Service Report R41953. Washington, DC: September 18, 2012.
- Sherlock, Molly F., and Margot L. Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.
- Sherwood, Larry. *U.S. Solar Market Trends 2011*. Interstate Renewable Energy Council. August 2012.
- Solar Energy Industries Association (SEIA) and GTM Research. U.S. Solar Market Insight Report: 2011 Year-In-Review. 2012.
- U.S. Congress. House Committee on Ways and Means. *Tax Credits for Electricity Production from Renewable Energy Resources*. Hearing Before the Subcommittee on Select Revenue Measures, 109th Congress, 1st session, May 24, 2005.
- —. Senate Committee on Energy and Natural Resources. *Power Generation Resource Incentives and Diversity*. Hearings, 109th Congress, 1st session. Washington, DC: U.S. Government Printing Office, March 8, 2005.

Energy

TAX CREDITS FOR CLEAN FUEL VEHICLE REFUELING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(1)	(¹)
2012	(¹)	(¹)	$\binom{1}{2}$
2013	$\binom{1}{2}$	(¹)	$\binom{1}{2}$
2014	(¹)	(¹)	(¹)
2015	(¹)	(¹)	(1)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 30C.

Description

A 30% tax credit is provided for the cost of any qualified alternative fuel vehicle refueling property installed by a business or at the taxpayer's principal residence. The credit is limited to \$30,000 for businesses at each separate location, and \$1,000 for residences.

Clean fuel refueling property is generally any tangible equipment (such as a pump) used to dispense a fuel into a vehicle's tank. Qualifying property includes fuel storage and dispensing units and electric vehicle recharging equipment. A clean fuel is defined as any fuel at least 85% of the volume of which consists of ethanol (E85) or methanol (M85), natural gas, compressed natural gas (CNG), liquefied natural gas, liquefied petroleum gas, and hydrogen, or any mixture of biodiesel and diesel fuel, determined without regard to any use of kerosene and containing at least 20% biodiesel. For the purposes of the credit, electricity is also considered a clean burning fuel.

For business taxpayers, the taxpayer's basis in the property is reduced by the amount of the credit. Only the portion of the credit attributable to property subject to depreciation is treated as a portion of the general business credit. As part of the general business credit, unused credits may be carried back for one year or carried forward for 20 years. For non-business property, the credit cannot exceed the excess of an individual's income tax liability over the sum of nonrefundable personal credits and the foreign tax credit over the taxpayer's tentative minimum tax. No credit is available for property used outside the United States. For property sold to a tax-exempt entity, the seller of the property may be able to claim the credit.

This credit is effective for property placed in service after December 31, 2005, and in the case of property relating to hydrogen, before January 1, 2015. The credit terminates on December 31, 2011 for non-hydrogen related property.

Impact

Under current depreciation rules (the Modified Cost Recovery System), the cost of most equipment used in retail gasoline and other fuel dispensing stations is generally recovered over five years using the double-declining balance method. However, some of the property might be classified differently and have a longer recovery period. For example, concrete footings and other "land improvements" have a recovery period of nine years. Alternatively, under IRC section 179, a small business fuel retailer may elect to expense up to \$100,000 of such investments. Allowing a 30% investment tax credit for alternative fuel dispensing equipment greatly reduces the after-tax cost, raises the pre-tax return, and reduces the marginal effective tax rates significantly. This should increase investment in alternative fuel dispensing equipment and increase the availability of alternative fuels.

To the extent that the credits are effective in increasing the availability of alternative fuels, and substitute for petroleum products (gasoline and diesel fuel), there is a decline in petroleum use and importation. Fuel consumed in conventional motor vehicles accounts for the largest fraction of total petroleum consumption, and foreign oil consumption remains a challenge in achieving domestic energy security. Alternative fuel vehicles are also generally less polluting, producing lower total fuel cycle emissions when compared to equivalently sized conventional vehicles.

Rationale

Section 30C was enacted as part of the Energy Policy Act of 2005 (P.L. 109-58) to stimulate the supply of alternative motor fuels such as E85 (mixtures of 15% gasoline and 85% ethanol) and CNG. The provision complements tax credits for alternative technology vehicles and alternative fuels (both discussed elsewhere in this compendium). Congress held that further investments in alternative fuel infrastructure are necessary to encourage consumers to invest in alternative fuel vehicles. This investment, in turn, is necessary to transform the mode of transportation in the United States toward cleaner, fuel-efficient vehicles. Ultimately, this could reduce reliance on petroleum, particularly imported petroleum, which endangers U.S. energy and economic security.

The Energy Policy Act of 1992 (P.L. 102-486) introduced a \$100,000 tax deduction for business investment in clean fuel refueling property. This tax deduction was set to expire on January 1, 2007, but the Energy Policy Act of 2005 accelerated the expiration date by one year and replaced the deduction with the 30% tax credit. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the 30% alternative refueling property credit (capped at \$30,000) for three years, through 2010. The law also provides a tax credit to businesses (e.g., gas stations) that install alternative fuel pumps, such as fuel pumps that dispense fuels such as E85, compressed natural gas, and hydrogen. The law also adds electric vehicle recharging property to the definition of alternative refueling property. The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) temporarily increased, for the 2009 and 2010 tax years, the credit amount to 50% for non-hydrogen related property. In addition, maximum credit amounts were increased to \$50,000 for business property and \$2,000 for non-business property. In the case of hydrogen-related property, the maximum credit amount was increased to \$200,000. The Tax Relief, Unemployment Reauthorization, and Job Creation Act of 2010 extended this credit, at the lower credit rates and limits, through December 31, 2011.

Assessment

The lack of alternative fuel infrastructure has been a market barrier to the expanded use of alternative fuels. Lack of investment in alternative fuel supply is due, at least in part, to lack of consumer demand for the vehicles, which was in turn due to the lack of alternative fuel infrastructure. The section 30C tax credit for clean fuel refueling property was intended to address this market obstacle to alternative fuel production and use.

The number of alternative fueling stations nearly doubled between 2005 and 2011. Most of this increase was due to substantial increases in the number of retailers able to dispense E85 and electric vehicle supply equipment (ESVE) (or electric charging stations). The number of electric charging stations increased dramatically following the 2010 introduction of plug-in electric vehicles by major automobile manufacturers.

As of September 2012, more than 2,500 of the nation's fuel retailers dispensed E85. Additionally, there were 13,659 electric charging units, 2,642 propane (liquefied petroleum gas) stations, 1,119 compressed natural gas fuel stations, 677 biodiesel fuel stations, 58 hydrogen fuel stations, and 59 liquefied natural gas stations. While the number of alternative fuel stations is increasing, such stations continue to represent a small share of fuel stations generally. The 30% tax credit for alternative fuel property at refueling stations could address this shortage and market problem with respect to the development of alternative fuels. Given the current state of development of E85 and other alternative fuel refueling infrastructure required for their use, and given the many technological and cost barriers to this development, the tax credit might stimulate additional investment. Greater (and more convenient) supply of alternative fuels could then reduce their price, stimulate demand for alternative fuels, and reduce petroleum consumption and importation.

From an economic perspective, however, allowing special tax credits for selected technologies distorts the allocation of resources, and may create economic inefficiencies. Tax credits encourage investments in high cost technologies, ones that would not otherwise be economical at current and expected prices and rates of return. Economic theory suggests that taxes on conventional fuels and conventional fuels using vehicles, such as the gas-guzzler tax of IRC section 4064, is more effective and efficient in stimulating the development of the least cost alternatives to gasoline and diesel fuel. When conventional motor fuel prices are sufficiently high, many motorists have sufficient financial incentives to purchase more fuel efficient vehicles, and vehicles fueled by alternative fuels, without tax credits.

Selected Bibliography

Beresteanu, Arie, and Shanjun Li, "Gasoline Prices, Government Support, and the Demand for Hybrid Vehicles in the U.S.," *International Economic Review*, February 2011. vol. 52. pp. 161-182.

Boes, Richard F., and G. Michael Ransom. "Clean-Fuel Vehicles and Refueling Property in the United States Tax Code." *Logistics and Transportation Review.* March 1994. vol. 30. pp. 73-79.

Chirinko, Robert S., Steven M. Fazzarri, and Andrew P. Meyer. "How Responsive Is Business Capital Formation to Its User Cost? An Exploration with Micro Data." *Journal of Public Economics* vol. 74 (1999), pp. 53-80.

Cohen, Darryl, and Jason Cummins. A Retrospective Evaluation of the Effects of Temporary Partial Expensing. Federal Reserve Board Staff Working Paper 2006-19, April 2006.

Cunningham, Lynn J., et al. Alternative Fuel and Advanced Vehicle Technology Incentives: A Summary of Federal Programs. Library of Congress, Congressional Research Service Report R42566. Washington, DC: June 12, 2012.

Cordes, Joseph J. "Expensing," in the *Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, eds. (Washington: Urban Institute Press, 2005).

Cummins, Jason G., Kevin A. Hassett, and R. Glenn Hubbard, "A Reconsideration of Investment Behavior Using Tax Reforms as Natural Experiments." *Brookings Papers on Economic Activity*, 1994, no. 1, pp. 1-72.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: March 28, 2012.

U.S. Department of Energy. *Alternative Fueling Station Total Counts by State and Fuel Type*. Energy Efficiency and Renewable Energy: Alternative Fuels and Advanced Vehicles Data Center. September 30, 2012.

"Tax Briefing: A Look at the Energy Tax Incentives Act of 2005 and the SAFE Transportation Equity Act of 2005." *Taxes*. September 2005. vol. 83. pp. 19-27.

Yacobucci, Brent D. Alternative Fuels and Advanced Technology Vehicles: Issues in Congress. Library of Congress, Congressional Research Service Report R40168. Washington, DC: January 19, 2012.

Energy

TAX CREDITS FOR ELECTRICITY PRODUCTION FROM RENEWABLE RESOURCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	1.4	1.4
2012	(¹)	1.6	1.6
2013	(¹)	1.7	1.7
2014	(¹)	1.8	1.8
2015	(1)	1.7	1.7

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 45.

Description

Taxpayers producing energy from a qualified renewable energy resource may qualify for a tax credit. Qualified energy resources include wind, closed-loop biomass, open-loop biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste (trash combustion and landfill gas), qualified hydropower production, and marine and hydrokinetic renewable energy sources. The credit amount in 2012 for electricity produced using wind, closed-loop biomass, and geothermal energy resources is 2.2¢ per kilowatt hour (kWh). Other resources qualify for a credit equal to half the full credit amount, or 1.1¢ per kWh in 2012. The credit amount is based on the 1993 value of 1.5¢ per kWh, which is adjusted annually for inflation.

The production tax credit (PTC) is generally available for 10 years, beginning on the date the facility is placed in service. Certain facilities placed in service prior to August 8, 2005 are only eligible to receive the PTC for 5 years. To qualify for the credit, wind facilities must be placed in service

by December 31, 2012. The placed-in-service deadline for other technologies is December 31, 2013.

The PTC is phased out as the price of electricity exceeds a threshold level. Specifically, when the annual average contract price per kWh of electricity sold (the reference price) in the prior year exceeds 8¢ per kWh (adjusted annually for inflation), the credit phases out over a 3¢ phaseout range. To date, electricity prices have yet to exceed levels that would trigger phaseout.

Generally, the taxpayer must own the qualified facility and sell the electricity produced to an unrelated party to qualify for the tax credit. A lessee or operator may claim the credit in lieu of the owner for qualified open-loop biomass facilities. A lessee or operator may also claim the credit for qualified closed-loop biomass facilities modified to co-fire with coal, other biomass, or with a combination of the two.

The amount that may be claimed as a PTC is reduced for projects receiving other federal tax credits, grants, tax-exempt bonds, or subsidized energy financing. In all cases, the reduction cannot exceed 50 percent of the otherwise allowable credit. Open-loop biomass facilities and co-fire closed-loop biomass facilities are eligible for the full credit, regardless of other credits, grants, or subsidized financing received.

Cooperatives that are eligible for the PTC may elect to pass through any portion of the credit to their patrons. To be eligible for this election, the cooperative has to be more than 50 percent owned by agricultural producers or entities owned by agricultural producers. The election is made on an annual basis, and is irrevocable once made.

The PTC is a component of the general business credit and is subject to the rules and limitations associated with the credit under Internal Revenue Code (IRC) § 38. General business credit limitations do not apply to the PTC during a facility's first four years of production. Under the general business credit, excess credits may be carried back for one year or carried forward for up to 20 years.

Section 1603 Grants in Lieu of Tax Credits. The American Recovery and Reinvestment Act of 2009 (P.L. 111-5), Section 1603, allows taxpayers eligible for the PTC to instead claim the renewable energy investment tax credit (ITC, discussed elsewhere in this compendium). Taxpayers unable to fully claim the ITC may apply to the Treasury to receive a cash payment in

lieu of tax credits. Facilities eligible for the PTC may qualify for a grant equal to 30 percent of a qualifying project's eligible basis.

Grants are eligible for property that is placed in service during 2009, 2010, or 2011. Projects where construction began during 2009, 2010, or 2011 may also be eligible to receive the grant so long as the property is placed in service prior to the PTC's placed-in-service deadline (December 31, 2012 for wind property; December 31, 2013 for other eligible properties).

Impact

The PTC was originally intended to encourage the generation of electricity using wind and biomass. While other technologies are now eligible for the PTC, the majority of revenue losses associated with this provision serve to benefit electricity production using wind and open-loop biomass. Between 2011 and 2015, 85 percent of PTC tax expenditures are expected to be claimed by wind, with nearly 9 percent of claims being made by biomass facilities. The remaining 6 percent is expected to be claimed by geothermal, qualified hydropower, solar, small irrigation power, and municipal solid waste facilities.

Wind electricity generation capacity, while still a small share (approximately 3 percent) of total electricity generation, has increased in recent years. At the end of 2000, installed wind capacity was approximately 2.5 gigawatts (GW). By the end of 2005, installed wind capacity had more than tripled, to 9.1 GW. Between the end of 2005 and the end of 2011, installed wind capacity increased five-fold to nearly 46.9 GW.

As of September 2012, the Treasury had awarded \$14.0 billion in grants under the Section 1603 grants in lieu of tax credit program. Roughly 70 percent of the funds awarded through September 2012 have been for wind projects that would otherwise have qualified for the PTC.

Rationale

The PTC was adopted as part of the Energy Policy Act of 1992 (P.L. 102-486). Its purpose was to encourage the development and utilization of electric generating technologies that use specified renewable energy resources, as opposed to conventional fossil fuels. The Ticket to Work and Work Incentive Improvement Act of 1999 (P.L. 106-170) extended the placed-in-service deadline from July 1, 1999, to January 1, 2002. It also added poultry waste as a qualifying energy resource. The Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) extended the placed-in-

service deadline to January 1, 2004. The Working Families Tax Relief Act of 2004 (P.L. 108-311) extended the placed-in-service dates for wind, closed-loop biomass, and poultry waste facilities so that those placed into service after December 31, 2003, would also qualify for the tax credit. The American Jobs Creation Act of 2004 (P.L. 108-357) expanded the renewable electricity credit to open-loop biomass, geothermal, solar, small irrigation power, and municipal solid waste facilities.

The Energy Policy Act of 2005 (P.L. 109-58) extended the placed-inservice deadline for all facilities except for solar energy facilities described in § 45(d)(4) to December 31, 2007. In addition, P.L. 109-58 extended the credit period to 10 years for all qualifying facilities placed in service after the date of enactment (August 8, 2005), eliminating the five-year credit period to which some facilities had been subject. Also, the definition of qualified energy resources that can receive the credit was expanded to include qualified hydropower production, although a qualified hydroelectric facility would be entitled to only 50 percent of the usual credit. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the placed-in-service date for facilities other than solar, qualified coal and Indian coal to the end of 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the placed-in-service date through December 31, 2009 in the case of wind, and through December 31, 2010 in the case of other sources. The 2008 law also expanded the types of facilities qualifying for the credit to new biomass facilities and to those that generate electricity from marine renewables (e.g., waves and tides). The law also updated the definition of an open-loop biomass facility, the definition of a trash combustion facility, and the definition of a non-hydroelectric dam.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) extended the placed-in-service deadline by three years for most technologies (the placed-in-service deadline for marine and hydrokinetic facilities was extended for two years). P.L. 111-5 also introduced the Section 1603 Treasury grant program, allowing facilities eligible for the PTC to instead elect to receive the ITC or apply to the Treasury for a cash grant. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the Section 1603 grant program for one year, through 2011.

Assessment

Federal tax policy, and other federal energy policy, has been critical to the development of renewable electricity, particularly wind power. In the late 1970's and 1980's the investment tax credits established under President Carter's National Energy Act (NEA), along with California State tax credits, helped establish the first installations of wind power generation capacity. There was a slowdown in wind power investments in response to the sunset of these investment incentives, and the decline in real oil prices, and a lagged response after the enactment of the PTC in 1992. Evidence also suggests that termination of the PTC to wind power due to the expiration of the placed-inservice date on January 1, 2004, created policy uncertainty, and probably adversely affected (if only temporarily) investment in the technology.

In an empirical study evaluating the effect of the PTC on installed with capacity, Metcalf (2009) concludes that the PTC strongly influences installed wind capacity. Specifically, the PTC reduces the user cost of capital for wind investment. Estimates suggest that the ratio of the percentage change in investment relative to the percentage change in the user cost of capital exceeds one (in absolute value), and that much of the current investment in wind capacity can be explained by the PTC.

In addition to the PTC, additional policies may also be responsible for increased installation of renewable energy capacity. For example, renewable portfolio standards at the state level also encourage renewable generation installations. To the extent that future policies at the state and federal level mandate renewable energy use, or increase the relative price of non-renewable energy alternatives, the share of renewables in U.S. energy production is expected to increase.

Production subsidies for renewable electricity may be economically justified as producing electricity using renewable resources minimizes negative environmental impacts. There are likely market failures in electricity production using coal and natural gas, as such resources are associated with carbon emissions believed to be the cause of global climate change. As electricity producers fail to fully account for negative environmental costs when making production decisions, the market outcome results in an economically inefficient amount of energy production from polluting energy resources. While subsidizing renewable energy resources is one policy option for increasing the share of renewables in the energy portfolio, taxing polluting energy resources directly would be a more economically efficient policy option.

A further concern with subsidizing renewables as opposed to taxing polluting energy resources is the potential effect on total emissions. While subsidizing renewables increases renewables share in the overall energy portfolio, such subsidies also reduce energy prices. As energy prices fall, overall energy consumption increases, potentially working against gains in carbon emissions reductions.

Selected Bibliography

Bolinger, Mark, Ryan Wiser, and Naim Darghouth. *Preliminary Evaluation of the Impact of the Section 1603 Grant Program on Renewable Energy Deployment in 2009*, Lawrence Berkeley National Laboratory Paper LBNL-3188E. July 9, 2010.

Bolinger, Mark, Ryan Wiser, Karlynn Cory, and Ted James. *PTC, ITC, or Cash Grant: An Analysis of the Choice Facing Renewable Power Projects in the United States*, National Renewable Energy Laboratory NREL/TP-6A2-45359, March 2009.

Brown, Phillip. U.S. Renewable Electricity: How Does the Production Tax Credit (PTC) Impact Wind Markets? Library of Congress, Congressional Research Service Report R42576. October 10, 2012.

Brown, Phillip and Molly F. Sherlock. ARRA Section 1603 Grants in Lieu of Tax Credits for Renewable Energy: Overview, Analysis, and Policy Options. Library of Congress, Congressional Research Service Report R41635. November 9, 2011.

Brown, Phillip and Gene Whitney. U.S. Renewable Electricity Generation: Resources and Challenges. Library of Congress, Congressional Research Service Report R41954. August 5, 2011.

Carlson, Curtis and Gilbert E. Metcalf. "Energy Tax Incentives and the Alternative Minimum Tax." *National Tax Journal*. v. 61. September 2008, pp. 477-492.

DeCarolis, Joseph F. and David W. Keith. "The Economics of Large-Scale Wind Power in a Carbon-Constrained World." *Energy Policy*, v. 34, March 2006, pp. 395-410.

Fisher, Anthony C., and Michael H. Rothkopf. "Market Failure and Energy Policy: A Rationale for Selective Conservation," *Energy Policy*, v. 17. August 1989, pp. 397-406.

Hutchinson, Emma, Peter W. Kennedy, and Cristina Martinez. "Subsidies for the Production of Cleaner Energy: When Do They Cause Emissions to Rise?" *The B.E. Journal of Economic Analysis & Policy.* vol. 10, no. 1. (2010)

Inyan, S., L. Sunganthi, and Anand A. Samuel. "Energy Models for Commercial Energy Production and Substitution of Renewable Energy Resources." *Energy Policy*, v.34. November 2006, pp. 26-40.

Kobos, Peter H., Jon D. Erickson, and Thomas E. Drennen. "Technological Learning and Renewable Energy Costs: Implications for US Renewable Energy Policy." *Energy Policy*, v. 34, September 2006, pp.16-45.

Grobman, Jeffrey H. and Janis M. Carey. "The Effect of Policy Uncertainty on Wind-Power Investment." *The Journal of Energy And Development*, v. 28, Autumn 2002. pp. 1-14.

Metcalf, Gilbert M. "Investment in Energy Infrastructure and the Tax Code." In *Tax Policy and the Economy, Vol 24*, ed. Jeffery R. Brown. pp. 1-33. The University of Chicago Press. 2010.

Owen, Anthony D. "Environmental Externalities: Market Distortions and the Economics of Renewable Energy Technologies." *The Energy Journal*, v. 25. Fall, 2004, pp. 127-156.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources. Library of Congress, Congressional Research Service Report R41953. Washington, DC: September 18, 2012.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

- U.S. Congress. The Joint Committee on Taxation. Present Law Energy-Related Tax Provisions And Proposed Modifications Contained In The President's Fiscal Year 2011 Budget. JCX-23-10. April 12, 2010.
- U.S. Department of Energy. Energy Efficiency & Renewable Energy. U.S. Installed Wind Capacity and Project Locations: Installed Wind Capacity by State. 2012.

Wiser, Ryan. "Wind Power and the Production Tax Credit: An Overview of Research Results." Testimony Prepared for a Hearing On Clean Energy by the U.S. Senate Finance Committee, March 29, 2007.

Energy

TAX CREDITS FOR INVESTMENTS IN CLEAN COAL POWER GENERATION FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.2	0.2
2012	-	0.2	0.2
2013	•	0.2	0.2
2014	-	0.2	0.2
2015	-	0.2	0.2

Authorization

Sections 48A and 48B.

Description

An investment tax credit is available for selected types of advanced coal technologies. The Energy Improvement and Extension Act of 2008 (P.L. 110-343) allocated \$1.25 billion in credits for power generation projects that use integrated gasification combined cycle (IGCC) or other advanced coal-based electricity generation technologies. Qualifying taxpayers may be eligible for a 30 percent credit under section 48A. The Energy Improvement and Extension Act of 2008 also allocated \$250 million in credits for qualified gasification projects. The credit rate for gasification projects is also 30 percent under section 48B.

Prior allocations were awarded under the Energy Policy Act of 2005 (P.L. 109-58). These first-round allocations provided \$800 million for IGCC projects and \$500 million for other advanced coal-based electricity generation technologies. The credit rate for IGCC projects was 20%, while the credit rate for other advanced coal-based electricity generation projects was 15 percent. The Energy Policy Act of 2005 also allocated \$350 million

for qualified gasification projects. The credit rate for qualified investments in gasification projects was 20 percent.

Credits are only available for projects certified by the Secretary of Treasury in consultation with the Secretary of Energy. Certifications are issued in a competitive bidding process. The Secretary is directed to give the highest priority to applicants who have a research partnership with an eligible educational institution. For funds allocated under the Energy Improvement and Extension Act of 2008, the Secretary is required to disclose the identity of taxpayers receiving credits and the amount of the award.

Under the Energy Improvement and Extension Act of 2008, the Secretary is directed to award tax credits to projects with the greatest separation and sequestration percentage of total carbon dioxide emissions. At a minimum, qualifying IGCC and other advanced coal projects must include equipment that separates and sequesters at least 65 percent of the project's total carbon emissions to qualify for the credit under section 48A. Qualifying gasification projects must separate and sequester at least 75 percent of total carbon dioxide emissions under section 48B.

Impact

Roughly 45 percent of the U.S. electric supply is coal-based. Continued use of this plentiful domestic energy resource, while minimizing long-term compromises to the environment, is a policy priority. Technological developments in coal-fired power generation promise improved efficiency and reduced greenhouse gas emissions (primarily carbon dioxide). Carbon capture technology for coal power generation ranges from pre-combustion IGCC that burns hydrogen gas synthesized from coal (syngas) and separates the CO₂ during synthesis, oxy-fuel combustion that burns coal in a concentrated stream of oxygen creating only CO₂ combustion gas, to post-combustion capture that separates CO₂ from other combustion gases at the smokestack flue gas using chilled ammonia separation.

Investment tax credits, coupled with accelerated depreciation allowances, reduce after-tax capital costs to attract investment. Additionally, non-tax federal incentives, such as loan guarantees and research and development (R&D) grants, promote investment in clean coal technologies. While clean coal technologies are technologically feasible, uncertainty surrounding commercial viability remains a factor inhibiting investment.

Few U.S. electric utilities are currently building coal-gasification power plants. The lack of comprehensive carbon legislation, as well a increased supplies of low-cost natural gas, are factors contributing to slow deployment and commercialization of clean-coal power generating facilities.

In late 2006, the Internal Revenue Service announced that nearly \$1 billion in tax credits had been awarded to nine clean coal projects, located in nine different states. Reportedly, 49 companies from 29 states had requested \$5 billion in tax credits for projects totaling \$58 billion in cost.

During the 2009-10 allocation round, three advanced coal projects were awarded totaling more than \$1 billion in tax credits under section 48A. The entire \$250 million allocated for qualified gasification projects was awarded to two projects during the 2009-10 allocation round. The remaining \$241 million under section 48A was available for projects seeking allocations during the 2010-11 allocation round, although no allocations were made.

In 2012, the IRS announced that \$658.5 billion in section 48A tax credits were available for allocation. Some of the funds available for the 2012-13 allocation are funds that were previously allocated to projects that ultimately did not take place.

Rationale

The investment tax credits for clean coal technologies were established by the Energy Policy Act of 2005 (P.L. 109-58). As noted above, additional funds were allocated under the Energy Improvement and Extension Act of 2008 (P.L. 111-343). The investment tax credits for clean coal technologies are designed to encourage the burning of coal in a more efficient and environmentally friendly manner. The goal of clean-coal tax incentives is to promote technologies that allow the U.S. to use an abundant domestic energy resource while minimizing negative environmental effects.

Assessment

The investment tax credit reduces the cost of investing in clean coal technologies, ultimately promoting investment. Metcalf (2007) presents analysis of the levelized cost for different sources of electricity under various tax incentive scenarios. In Metcalf's analysis, the levelized cost is the price that a generator must receive to cover fixed and variable costs associated with electricity generation. The analysis found that eliminating the 20 percent investment tax credit for IGCC would increase the levelized cost from \$3.55 per kWh to \$4.06 per kWh (in 2004 dollars). The levelized cost

of conventional coal was estimated at \$3.53 per kWh. Levelized cost analysis from the Department of Energy, which does not include the impact of federal tax incentives, shows that advanced coal technologies continue to be substantially more expensive than natural gas-fired alternatives.

Despite some successful demonstrations, clean coal technologies are still generally economically unproven technologies in the sense that none have become commercial without significant subsidies. As a result, utilities may not have the confidence in them as compared to conventional systems. Even with reduced capital costs, the unpredictability of the clean coal systems increases risks and possibly operating and maintenance costs to the utility, which may inhibit investment. Thus, even if clean coal technologies become competitively priced, it is expected that market penetration will take some time.

Finally, while investment incentives may be an effective mechanism for promoting clean coal technologies, such subsidies are not economically efficient. Economic efficiency could be enhanced by directly taxing energy sources associated with greenhouse gas emissions, rather than subsidizing the alternative.

Selected Bibliography

Andrews, Anthony and Molly F. Sherlock. *Clean-Coal Authorizations, Appropriations, and Incentives.* Library of Congress, Congressional Research Service Report R40662. Washington, DC: November 1, 2010.

Brown, Marilyn, Benjamin K. Sovacool, and Richard F. Hirsh. "Assessing U.S. Energy Policy." *Daedalus* v. 135. Summer 2006, pp. 5-12.

Folger, Peter. Carbon Capture and Sequestration: Research, Development, and Demonstration at the U.S. Department of Energy. Library of Congress: Congressional Research Service Report R42496. Washington, DC: April 23, 2012.

Fri, Robert W. "From Energy Wish Lists to Technological Realities." *Issues in Science and Technology*, v. 23, Fall 2006, pp. 63-69.

Metcalf, Gilbert E., "Federal Tax Policy Towards Energy," in *Tax Policy and the Economy*, vol. 21, ed. James M. Poterba (Cambridge, MA: The National Bureau of Economic Research and the MIT Press, 2007), pp. 145-184.

Lackner Klaus F. "The Conundrum of Sustainable Energy: Clean Coal as One Possible Answer." *Asian Economic Papers* v. 4. Fall 2005.

- McCarthy, James E. *EPA Regulation of Greenhouse Gases:* Congressional Responses and Options. Library of Congress, Congressional Research Service Report R41212. Washington, DC: December 1, 2011.
- Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.
- Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.
- U.S. Congress, Joint Committee on Taxation. Description and Technical Explanation of the Conference Agreement of H.R. 6, Title XIII, "The Energy Tax Incentives Act of 2005." July 27, 2005.
- U.S. Congress, Joint Committee on Taxation. Present Law Energy-Related Tax Provisions and Proposed Modifications Contained in the President's Fiscal Year 2011 Budget. JCX-23-10. April 12, 2010.
- U.S. Department of Energy. Energy Information Administration. Electric Power Annual With Data for 2010: Summary of Statistics for the United States. November 9, 2011.
- U.S. Department of Energy Energy Information Administration. "Levelized Cost of New Generation Resources in the Annual Energy Outlook 2012." July 2012.
- U.S. Treasury Department. Internal Revenue Service. "Establishing Qualifying Advanced Coal Project Program." IRS Notice 2006-24. Internal Revenue Bulletin. March 13, 2006.
- U.S. Treasury Department. Internal Revenue Service. "Updating Procedure for Allocating Credits Under Advanced Coal Project Program of IRC Section 48A." IRS Notice 2007-52. Internal Revenue Bulletin. June 7, 2007.
- U.S. Treasury Department. Internal Revenue Service. "Credit Allocations Under Qualifying Advanced Coal Program Section 48A." IRS Notice 2008-96. Internal Revenue Bulletin. October 8, 2008.
- U.S. Treasury Department. Internal Revenue Service. "Deadline for Applications for 2007 Clean Coal Tax Credit Allocation." IRS News Release IR-2007-98. May 9, 2007.
- U.S. Treasury Department. Internal Revenue Service. "Special Allocation Round for Coal-Based Integrated Gasification Combined Cycle Projects Under Section 48A." IRS Notice 2008-26. Internal Revenue Bulletin. February 13, 2008.
- U.S. Treasury Department. Internal Revenue Service. "Reallocation of Section 48A Credits under the Qualifying Advanced Coal Project Program." IRS Notice 2012-51. Internal Revenue Bulletin. February 27, 2012.

Energy

ELECTION TO EXPENSE 50 PERCENT OF QUALIFIED PROPERTY USED TO REFINE LIQUID FUELS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	•	0.8	0.8
2012	-	0.7	0.7
2013	-	0.6	0.6
2014	-	0.6	0.6
2015	-	0.4	0.4

Authorization

Sections 179C and 168.

Description

Taxpayers may elect to expense 50% of the cost of qualified refinery property used to process liquid fuel from crude oil and other qualified fuels. The deduction is allowed in the taxable year in which the refinery property is placed in service. The remaining 50% of the cost is recovered using a 10-year recovery period under the modified accelerated cost recovery system (MACRS).

For property to qualify for the deduction, original use of the property must commence with the taxpayer. Eligible refineries are those in which a binding construction contract was entered into before January 1, 2010. In the case of self-constructed property, construction must have begun before January 1, 2010, or the refinery must have been placed in service before January 1, 2010. Finally, the refinery must be placed in service before January 1, 2014.

Expansions made to existing refineries may be eligible for the deduction if the expansion increases the refinery's capacity by 5%, or if the expansion

increases the percentage of total throughput attributable to qualified fuels such that it is greater than or equal to 25%. Additionally, all refineries claiming the deduction must meet all applicable environmental laws in effect when the property is placed in service.

As of October 3, 2008, qualified refineries include those used in the refining of liquid fuels directly from shale or tar sands. Cooperatives may elect to allocate all or part of the expensing deduction to one or more direct owners that are also cooperatives.

Impact

Under current depreciation rules (MACRS), refinery assets are generally depreciated over 10 years using the double declining balance method. Allowing 50% of the cost of the refinery to be deducted immediately (expensed) rather than depreciated over the normal 10-year life reduces the cost of constructing a refinery by nearly 5% for a taxpayer in the 35% tax bracket. The present value of a 10-year, double declining balance depreciation per dollar of investment is \$0.74 with an 8% nominal discount rate. For every dollar expensed, the benefit of expensing is to increase the present value of deductions by \$0.26, and since half of the investment is expensed, the value is \$0.13. Multiplying this value by 35% leads to a 4.6% benefit as a share of investment. The value would be larger with a higher discount rate. For example, at a 10% discount rate, the benefit would be 5.4%. The benefit is smaller for firms facing lower tax rates or those with limited tax liability.

Since the provision is temporary, taxpayers have an incentive to speed up the investment in refinery capacity so as to qualify for the tax incentive. Nevertheless, the incentive to speed up investment is limited, because the effective price discount is small. Investing in excess capacity that would not otherwise be desirable would either leave the plant idle or provide too much output and lower prices and profits for a period of time. The latter cost should be at least as large as the cost of remaining idle. With a 5% price discount, the interest cost of carrying excess capacity or losing profits could offset the tax credit's value.

Rationale

This provision was enacted in the Energy Policy Act of 2005 (P.L. 109-58). Its purpose is to increase investments in existing refineries so as to increase petroleum product output, and reduce prices. The Emergency

Economic Stabilization Act of 2008 (P.L. 110-343) extended both the refinery expensing contract requirement and the placed-in-service requirement for this expensing provision for two years. The law also allowed refineries that directly process shale or tar sands to qualify for this provision.

Assessment

Since the mid-1970s, the number of refineries has declined by over 50%. Currently, there are 144 operable refineries in the United States. In 1982, there were 301 operable refineries. In the mid-2000s, fears that crude oil production was in decline led to policies promoting alternative fuels and increased vehicle fuel efficiency. There was also concern that domestic refineries would not have enough capacity to meet growing domestic fuels demands. Since the summer 2008 peak in crude oil prices, however, the U.S. demand for refined petroleum products has declined. As a result, refinery operators cut back capacity, idling or permanently closing refineries.

Economic theory suggests that capital investments should be treated in a neutral fashion to maximize economic well-being. According to the theory, without an economic rationale for subsidizing the refining of liquid fuels, investment incentives distort the allocation of economic resources. In the case of refining related to petroleum and other liquid fossil fuels, there are pollution, congestion, and other external negative effects of consumption that might suggest a tax rather than a subsidy.

The transitory subsidy may not have a substantial effect if the temporary subsidy causes investors to change the timing of refinery construction, as opposed to increasing refinery construction. Investors may choose to shift refinery construction projects forward in time to take advantage of the tax incentive. This could temporarily reduce the price of refined petroleum products if capacity temporarily exceeds what it would have been without the additional construction. If, however, the tax incentive only changes the timing of investment, as opposed to generating new investment, the long run prices of petroleum products will not be affected.

The effect on refinery construction is difficult to estimate. The precise effect depends on the price elasticity of investment with respect to changes in costs. To illustrate, if such an elasticity were 1, then a 5.4% reduction in costs could be expected to increase refinery capital by 5.4%, which would translate into a roughly 900,000 barrels per day. Such an increase, if it were to materialize, would increase domestic petroleum output and reduce prices. However, recent evidence regarding bonus depreciation provisions generally

indicates that the response was not as large as hoped for and that, indeed, many firms did not appear to take advantage of the provision. In addition, most estimates of the elasticity of investment response to a permanent change in the cost of capital goods suggest a fairly low response, on the order of 0.25, although one study has found a higher response of about 0.66.

Selected Bibliography

Andrews, Anthony, Robert Pirog, and Molly F. Sherlock. *The U.S. Oil Refining Industry: Background in Changing Markets and Fuel Policies*. Library of Congress, Congressional Research Service Report R41478. Washington, DC: November 22, 2010.

Chirinko, Robert S., Steven M. Fazzarri, and Andrew P. Meyer. "How Responsive Is Business Capital Formation to Its User Cost? An Exploration with Micro Data?" *Journal of Public Economics*, Vol. 74 (1999), pp. 53-80.

Cohen, Darryl and Jason Cummins. A Retrospective Evaluation of the Effects of Temporary Partial Expensing. Federal Reserve Board, Staff Working Paper 2006-19, April 2006.

Cordes, Joseph J. "Expensing," in the *Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, eds (Washington: Urban Institute Press, 2005).

Cummings, Jason G., Kevin A. Hassett, and R. Glen Hubbard, "A Reconsideration of Behavior Using Tax Reforms as Natural Experiments." *Brookings Papers on Economic Activity*, 1994, no. 1, pp. 1-72.

Hungerford, Thomas L., and Jane G. Gravelle. *Business Investment and Employment Tax Incentives to Stimulate the Economy*. Library of Congress, Congressional Research Service Report R41034. Washington, DC: January 6, 2012.

Gravelle, Jane. Economic Effects of Taxing Capital Income. Cambridge, MA: MIT Press, 1994.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: March 28, 2012.

Sterner, Thomas. Policy Instruments for Environmental and Natural Resource Management. Resources for the Future, Washington, D.C. 2003.

U.S. Congress, Joint Committee on Taxation. Description and Technical Explanation of the Conference Agreement of H.R. 6, Title XIII, "The Energy Tax Incentives Act of 2005." July 27, 2005.

- U.S. Energy Information Administration. Refinery Outages: Description and Potential Impact on Petroleum Product Prices. SR/OOG/2007-01.
- U.S. Energy Information Administration. Petroleum & Other Liquids: Refinery Utilization and Capacity. October 30, 2012. http://www.eia.gov/dnav/pet/pet_pnp_unc_dcu_nus_m.htm.
- U.S. Department of the Treasury. Internal Revenue Service. *Accelerated Cost Recovery: Recovery Classes: Class lives: Recovery Periods*. Revenue Procedure 87-56, 1987-2 CB 674, (Oct. 19, 1987).
- U.S. Department of the Treasury. Internal Revenue Service. *Qualified Refinery Property: Expense Election*. Proposed Regulations (REG-146895-05) (July 7, 2008).
- U.S. Department of the Treasury. Internal Revenue Service Refineries: Qualified Refinery Property: Expense Election. T.D. 9412 (July 3, 2008).

Energy

CREDIT FOR HOLDERS OF CLEAN RENEWABLE ENERGY BONDS AND QUALIFIED ENERGY CONSERVATION BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(¹)
2012	$\binom{1}{}$	(1)	$\binom{1}{}$
2013	(¹)	(¹)	(¹)
2014	0.1	(¹)	0.1
2015	0.1	(¹)	0.1

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 54, 54C, and 54D.

Description

Clean renewable energy bonds (CREBs) are available for the finance of qualified energy production projects which include: (1) wind facilities, (2) closed-loop bio-mass facilities, (3) open-loop bio-mass facilities, (4) geothermal or solar energy facilities, (5) small irrigation power facilities, (6) landfill gas facilities, (7) trash combustion facilities, and (8) refined coal production facilities. Holders of CREBs can claim a credit equal to the dollar value of the bonds held multiplied by a credit rate determined by the Secretary of the Treasury. Alternatively, *issuers* of new CREBs (explained below) can choose to receive the credit, typically identified as the "direct payment option."

There are two types of CREBs. The original CREBs offered a credit rate equal to the percentage that will permit the bonds to be issued without discount and without interest cost to the issuer. The national limit on the original CREBs was \$1.2 billion, of which a maximum of \$750 million could be granted to governmental bodies (the remainder would go to utilities). The

original CREBs must have been issued before January 1, 2010. The credit rate is equal to the rate that will permit the bonds to be issued without discount and without interest cost to the issuer (or 100% of the interest cost).

The "new" CREBs were created by the Emergency Economic Stabilization Act of 2008 (EESA P.L. 110-343) for the same purpose with an \$800 million capacity. The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) contained several bond provisions including an additional \$1.6 billion of new CREB capacity. In contrast to the original CREBs, the credit rate on new CREBs is 70% of the credit rate offered on the old CREBs. Now, up to \$2.4 billion of new CREBs can be issued up to three years after the allocation is approved. Not more than one-third of new CREBs may be allocated to any of the following: (1) public power providers, (2) governmental bodies, or (3) projects of cooperative electric companies. New CREBs were authorized to be issued beginning October 3, 2008. After the initial round of allocations for electric cooperatives, \$190.8 million of capacity remained. The IRS accepted applications for the remaining unallocated cap through November 1, 2010.

EESA also created Qualified Energy Conservation Bonds (QECBs) and established a national limit of \$800 million for QECBs. ARRA added \$2.4 billion of additional capacity. Similar to new CREBs, these tax credit bonds offer a credit rate that is 70% of the credit rate offered on old CREBs. As with new CREBs, issuers of QECBs can choose to receive the credit by direct payment. These bonds are to be used for capital expenditures for the purposes of: (1) reducing energy consumption in publicly-owned buildings by at least 20 percent; (2) implementing green community programs; (3) rural development involving the production of the electricity from renewable energy resources; or (4) programs listed above for CREBs. Also included are expenditures on research facilities and research grants, to support research in: (1) development of cellulosic ethanol or other nonfossil fuels; (2) technologies for the capture and sequestration of carbon dioxide produced through the use of fossil fuels; (3) increasing the efficiency of existing technologies for producing nonfossil fuels; (4) automobile battery technologies and other technologies to reduce fossil fuel consumption in transportation; and (5) technologies to reduce energy use in buildings. Energy saving mass commuting facilities and demonstration projects are also included in the list of qualified purposes.

The maximum maturity of both new CREBs, old CREBs, and QECBs is that which will set the present value of the obligation to repay the principal equal to 50 percent of the face amount of the bond issue. The discount rate for the calculation is the average annual interest rate on tax-exempt bonds issued in the preceding month, having a term of at least 10 years. CREBs and QECBs are subject to arbitrage rules that require the issuer to spend 95 percent of the proceeds within five years of issuance.

In the 111th Congress, P.L. 111-147 created the direct payment option for issuers of new CREBs and QECBs and extended their issuance through 2010.

Impact

The interest income on bonds issued by state and local governments usually is excluded from federal income tax (see the entry "Exclusion of Interest on Public Purpose State and Local Debt"). Such bonds result in the federal government paying a portion (approximately 25 percent) of the issuer's interest costs. The original CREBs are structured to have the interest paid by the federal Government in the form of a tax credit to the bond holders or later (bonds issued after March 18, 2010) a direct payment to the issuer. The new CREBs and QECBs are structured such that 70 percent of the interest cost is paid by the federal government. The cost is limited by the value of federal tax credits generated by the \$1.2 billion for the original CREBs, \$2.4 billion for the new CREBs, and \$3.2 billion for QECBs.

Rationale

Proponents of CREBs and QECBs have argued that the federal subsidy is necessary because private investors are unwilling to accept the risk and relatively low return associated with renewable energy and energy conservation projects. Proponents argue that the market has failed to produce investment in renewable energy and conservation because the benefits of these projects extend well beyond the service jurisdiction to the surrounding community and to the environment more generally. The rate payers of the utility are not compensated for these external benefits, and it is unlikely, proponents argue, that private investors would agree to provide them without some type of inducement.

The two energy bond programs seem popular with policymakers. CREBs were introduced in 2005 (P.L. 109-58); P.L. 109-432, enacted in December of 2006, increased the capacity amount by \$400 million and extended issuance authority through 2008. P.L. 110-343 extended CREBs issuing authority through 2009 and added \$800 million for a "new" CREB

and \$800 million for QECBs; both with a smaller federal subsidy (the credit is 70 percent of the credit amount on the original CREBs). P.L. 111-5 extended CREBs through 2010, added \$1.6 billion to CREB capacity, and \$2.4 billion to QECB capacity.

Assessment

The legislation (P.L. 109-58) that created the original CREBs was enacted on August 8, 2005, and the success of the program is still uncertain, even if the allocations are fully subscribed. One way to think of this alternative subsidy is that investors were induced to purchase these bonds if they received the same after-tax return from the credit that they would have from the purchase of tax-exempt bonds. The value of the credit is included in taxable income, but is used to reduce regular or alternative minimum tax liability. Assuming the taxpayer is subject to the regular corporate income tax, the credit rate should equal the ratio of the purchaser's forgone market interest rate on tax-exempt bonds divided by one minus the corporate tax rate. For example, if the tax-exempt interest rate is 6 percent and the corporate tax rate is 35 percent, the credit rate would have to be equal to .06/(1-.35), or about 9.2 percent to induce investment. Thus, an investor purchasing a \$1 million original CREB would need to receive a \$92,000 annual tax credit each year. For new CREBs and QECBs, the tax credit is 70 percent of that amount or \$64,400. The issuer would pay interest of at least \$27,600 to match the taxable bond alternative (e.g., the \$92,000).

The direct payment option made available for new CREBs and QECBs likely made the bonds more attractive to a broader investor pool. With the direct payment option, the *issuer* pays the investor the full taxable interest rate rather than the *investor* receiving a federal tax credit. This change likely made the bonds more attractive to non-taxed investors such as international investors and pension funds. As a result, the interest cost to the issuers was likely lower as the increased demand for the bonds put downward pressure on interest rates.

In contrast to tax-exempt bonds, where part of the federal revenue loss is a windfall gain for wealthy investors, the federal revenue loss matches more closely the benefit captured by the entity issuing tax credit bonds.

Selected Bibliography

Congressional Budget Office, Tax Credit Bonds and the Federal Cost Financing Public Expenditures, July 2004.

Congressional Budget Office and the Joint Committee on Taxation, Subsidizing Infrastructure Investment with Tax-Preferred Bonds, October 2009.

Davie, Bruce, "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," Proceedings of the 91st Annual Conference on Taxation, National Tax Association, 1999.

Maguire, Steven. *Tax Credit Bonds: Overview and Analysis*. Library of Congress, Congressional Research Service Report R40523, September 20, 2012.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638, June 19, 2012.

Matheson, Thornton. "Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data," Statistics of Income Bulletin, Internal Revenue Service, Spring 2007, pp. 155-162.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds." *National Tax Journal*, vol. 64, no. 2, June 2011, pp. 591-613.

Sherlock, Molly F., and Steven Maguire. *Tax-Favored Financing for Renewable Energy Resources and Energy Efficiency*. Library of Congress, Congressional Research Service Report R41573, January 10, 2011.

- U.S. Congress, Joint Committee on Taxation, *The Revenue Effect of Tax-Exempt and Direct-Pay Bond Provisions*, Joint Committee Print JCX-60-12, July 16, 2012.
- U.S. Congress, Joint Committee on Taxation, General Explanation of Tax Legislation Enacted in 1997, Joint Committee Print JCS-23-97, December 17, 1997, 40-41.
- U.S. Congress, Joint Committee on Taxation, *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

Energy

AMORTIZATION OF CERTIFIED POLLUTION CONTROL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011		0.2	0.2
2012	-	0.2	0.2
2013	-	0.2	0.2
2014	-	0.2	0.2
2015	-	0.2	0.2

Authorization

Section 169(d)(5).

Description

This provision makes the pre-1976, 5-year, option to amortize investments in pollution control equipment for coal-fired electric generation plants available to those plants placed in service on or after January 1, 1976. Before enactment of IRC section 169(d)(5), 5-year amortization of pollution control equipment applied only to older coal-fired power plants — those placed in service before January 1, 1976. However, investments in pollution control equipment made in connection with post-1975 power plants now qualify for amortization over seven years rather than five years. The 5-year amortization incentive for pre-1976 plants applies only to pollution control equipment with a useful life of 15 years or less. In that case 100% of the cost can be amortized over five years. If the property or equipment has a useful life greater than 15 years, then the proportion of the costs that can be amortized over five years is less than 100%.

Qualifying pollution control equipment means any technology that is installed in or on a qualifying facility to reduce air emissions of any pollutant regulated by the Environmental Protection Agency (EPA) under the Clean

Air Act. This includes scrubber systems, particulate collectors and removal equipment (such as electrostatic precipitators), thermal oxidizers, vapor recovery systems, low nitric oxide burners, flare systems, bag houses, cyclones, and continuous emission monitoring systems. The pollution control equipment needs to have been placed in service after April 11, 2005.

Impact

In the federal tax code, amortization is a method of depreciation that recovers the total cost basis evenly (i.e., straight line depreciation) over the recovery period, in this case either five or seven years depending on the age of the power plant. In either case, however, because the two recovery periods are substantially less than the economic life of the assets, such amortization provides more accelerated depreciation deductions for pollution control equipment than would otherwise be the case under the Modified Accelerated Cost Recovery System (MACRS), in which the recovery period for the conventional type of electric generating equipment is either 15 or 20 years, depending on the type of equipment. The recovery period is 15 years for generating equipment that uses internal combustion, jet, or diesel engines; 20 years for most types of conventional electric utility tangible property such as steam or gas turbines, boilers, combustors, condensers, combustion turbines operated in a combined cycle with a conventional steam unit, and related assets. The shorter period for internal combustion engines is because this type of equipment typically deteriorates faster than conventional coal-fired equipment. Also the recovery method is one of the more accelerated types: either the double-declining balance method or the 150% declining balance method. Amortization in this way thus provides more accelerated depreciation deductions for pollution control equipment than does MACRS. Because of the time value of money, the earlier deduction is worth more in present value terms, which reduces the cost of capital and the effective tax rates on the investment returns. This should provide an incentive for power plant companies (primarily the tax paying investor-owned utilities, or IOUs) to invest in pollution control equipment.

This provision targets electric utilities, a major source of air pollution. And while older coal plants still emit a disproportionate amount of pollution among all coal-fired plants, the provision complements prior law by also targeting emissions from newer plants. The incentive will facilitate utilities in meeting a new suite of EPA mandates to reduce emissions of sulfur dioxide (SO₂), nitrous oxide (NO₂), and mercury (Hg).

Rationale

This provision was part of the Energy Policy Act of 2005 (P.L. 109-58). Before that, investments in pollution control equipment for pre-1976 coalfired plants were amortizable over 5 years. Before the 2005 act, pollution control equipment added to "newer" plants (those placed in service after 1975) was depreciated using the same MACRS methods that apply to other electric generating equipment on the date they are placed in service (15- or 20-year recovery period using the 150% declining balance method, as discussed below). The 5-year amortization of pollution control equipment was added by the Tax Reform Act of 1969 to compensate for the loss of the investment tax credit, which was repealed by the same act. Prior to 1987, pollution control equipment could be financed by tax-exempt bonds. This benefitted all types of electric utilities and not just public power companies. because although the state or local government would issue the bonds, the facilities were leased back to the IOUs or cooperatives. Billions of dollars of pollution control equipment were financed in this way until the safe-harbor leasing tax rules were repealed by the Tax Reform Act of 1986.

Assessment

Pollution control equipment used in connection with coal-fired power plants is a significant fraction of a plant's cost. Thus, the tax treatment of this type of equipment is important in determining the investment decisions of the electric utility. The Clean Air Act's "New Source Review" provisions require the installation of state-of-the-art pollution-control equipment whenever an air-polluting plant is built or when a "major modification" is made on an existing plant. By creating a more favorable (in some cases much more favorable) regulatory environment for existing facilities than new ones, grandfathering creates an incentive to keep old, grandfathered facilities up and running.

The federal tax code has also provided an unintended incentive to retain — a disincentive to scrap — equipment and other business assets. One of these tax provisions is the 5-year amortization of pollution control equipment connected with older (pre-1976) power plants. This, and other provisions under prior law (such as accelerated depreciation and investment tax credits), and current tax penalties for premature dispositions of capital equipment under the recapture provisions and the alternative minimum tax may have provided a disincentive to invest in new equipment and other new assets.

Selected Bibliography

Abel, Amy. Energy Policy Act of 2005, P.L. 109-58: Electricity Provisions. Congressional Research Service Report RL33248. Washington, DC: January 24, 2006.

Hsu, Shi-Ling. "What's Old Is New: The Problem with New Source Review." *Regulation*. Spring 2006. v. 29. Washington: pp. 36-43.

Joskow, Paul L. "Competitive Electricity Markets and Investment in New Generating Capacity," MIT Research Paper. April, 28, 2006.

Joskow, Paul L. *Transmission Policy in the United States*. AEI-Brookings Joint Center for Regulatory Studies. October 2004.

Joskow, Paul L. "Restructuring, Competition, and Regulatory Reform in the U.S. Electricity Sector," *Journal of Economic Perspectives*. Summer 1997. v. 11. pp. 119-138.

Lee, Amanda I., and James Alm. "The Clean Air Act Amendments and Firm Investment in Pollution Abatement Equipment." *Land Economics*. August 2004. v. 80. pp. 433.

McCarthy, James E., and Larry Parker. Costs and Benefits of Clear Skies: EPA's Analysis of Multi-Pollutant Clean Air Bills. U.S. Library of Congress. Congressional Research Service Report RL33165. November 23, 2005.

Parker, Larry, and John Blodgett. *Air Quality and Electricity: Enforcing New Source Review*. U.S. Library of Congress. Congressional Research Service Report RL30432. January 31, 2000.

Popp, David. "Pollution Control Innovations and the Clean Air Act of 1990." *Journal of Policy Analysis and Management*. Fall 2003. v. 22. pp. 641.

Sherlock, Molly, Energy Tax Policy: Historical Perspective and Current Status of Energy Tax Expenditures. Congressional Research Service Report R41227. Washington, DC: May 7, 2010.

Sterner, Thomas. Policy Instruments for Environmental and Natural Resource Management. Resources for the Future, Washington. 2003.

U.S. Congress, Joint Committee on Taxation. Federal Tax Issues Relating to Restructuring of the Electric Power Industry. Hearing before the Subcommittee on Long-Term Growth and Debt Reduction of the Senate Finance Committee, October 15, 1999. JCX 72-99.

Energy

CREDIT FOR PRODUCTION OF REFINED COAL AND INDIAN COAL

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	**	(1)	(¹)
2012	-	(¹)	(¹)
2013	-	(¹)	(¹)
2014	•	(¹)	(¹)
2015	-	(1)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 45.

Description

Producers of refined coal and Indian coal may be eligible for a production tax credit (PTC). Refined coal is a synthetic fuel produced from coal (including lignite) or high-carbon fly ash that when burned emits 20 percent less nitrogen oxide and 40 percent less sulfur dioxide or mercury compared to feedstock coal available in 2003.

The credit for qualified refined coal in 2012 is \$6.475 per ton (\$4.375 per ton in 1992 dollars, adjusted annually for inflation). Qualifying fuels are those that when burned, emit 20 percent less nitrogen oxides and either sulfur dioxide or mercury than the burning of feedstock coal or comparable coal. Further, the fuel must sell at a price that is 50 percent greater than that of the feedstock coal. Qualifying coal must be sold to an unrelated party. The credit phases out over an \$8.75 phase-out range as the reference price of the fuel used as a feedstock exceeds 1.7 times the reference price for the fuel in 2002 (adjusted for inflation) (there is no phase out in 2012). The credit is available

for facilities placed in service after October 22, 2004 and before January 1, 2012. Refined coal producers may claim the credit for 10 years after a facility is placed in service.

Refined coal facilities placed in service after 2008 do not need to sell qualified refined coal at a reference price that is at least 50 percent greater than the price of the feedstock coal. Instead, qualified refined coal from facilities placed in service after 2008 need to reduce emissions of either sulfur dioxide or mercury by 40 percent (rather than 20 percent) as compared to emissions released by the feedstock or comparable coal.

Qualified Indian coal facilities are those that produce coal from reserves owned by a federally recognized Indian tribe or held in trust by the United States for a tribe or its members. Qualifying facilities are those that were placed in service before the end of 2009 that produce coal from reserves that on June 14, 2005 were owned by an Indian tribe.

Between January 1, 2006 and December 31, 2012 taxpayers may claim credits for the sale of Indian coal produced in the United States by the taxpayer at a qualified Indian coal facility. The credit for 2012 is \$2.267 per ton (the credit is adjusted annually for inflation).

The credits for refined coal and Indian coal are part of the general business credit. Unused credits may be carried back one year and carried forward for up to 20 years.

As part of the PTC, refined coal facilities could qualify for the grant in lieu of tax credits authorized under Section 1603 of the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). As of September 2012, no grants have been awarded to refined coal facilities.

Impact

The tax credit for refined coal reduces the cost of producing refined coal which can then be used to generate electricity (the credit is not available for electricity produced from coal). Prior to 2008, production of coal-based synthetic fuels (a.k.a. refined coal) were eligible for a production tax credit under Section 29 of the Internal Revenue Code. Under Section 29, coal that underwent a significant chemical change could be given a credit as a coal-based synthetic fuel. The credits previously available under Section 29 were generous relative to those awarded under the PTC. Further, the credit for refined coal under Section 45 requires that producers adhere to more stringent environmental standards than were imposed under Section 29.

Currently, few producers meet the criteria under Section 45 to qualify for a tax credit for the production of refined coal.

Rationale

The PTC was expanded to include refined coal by the American Jobs Creation Act of 2004 (P.L. 108-357). This legislation also expanded the PTC to allow renewable electricity using open-loop biomass, geothermal, solar, small irrigation power, and municipal solid waste to qualify. The Energy Policy Act of 2005 (P.L. 109-58) added Indian coal production facilities as production eligible for the PTC. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the placed-in-service deadline for refined coal through December 31, 2009. This legislation also increased the emissions standards on the refined coal credit and removed the market value test. The changes made under the 2008 legislation effectively added steel industry fuel to the list of qualifying fuels. The Tax Relief, Unemployment Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the placed-in-service deadline for refined coal facilities, other than refined coal facilities producing steel industry fuel, through December 31, 2011.

Assessment

The PTC for refined coal reduces the cost of this fuel relative to other fuel sources. Reducing the cost through a subsidy is intended to encourage the production of refined coal. Alternatively, if the cost of other liquid based fuels, such as petroleum, were to increase, coal to liquid technologies (including refined coal) would become more cost competitive. Since refined coal adheres to higher environmental standards, a tax on carbon-emitting fuels, which increases the cost of such fuels, would be an economically efficient mechanism for promoting the use of refined coal technologies. Taxing emissions directly, as opposed to subsidizing low-emissions technologies, would allow markets to select the optimal energy resources.

Selected Bibliography

Carlson, Curtis and Gilbert E. Metcalf. "Energy Tax Incentives and the Alternative Minimum Tax," *National Tax Journal*, vol.61. (September 2008). pp. 477-491.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F. Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources. Library of Congress, Congressional Research Service Report R41953. Washington, DC: September 18, 2012.

Sherlock, Molly F., and Margot L. Crandall Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

- U.S. Congress, Joint Committee on Taxation. *Present Law And Analysis of Energy-Related Tax Expenditures*. JCX-28-12. March 23, 2012.
- U.S. Department of Energy. Analysis of Five Selected Tax Provisions of the Conference Energy Bill of 2003. Energy Information Administration. Report SR-OIAF/2004-01. February 2004.

Energy

CREDIT FOR ENERGY-EFFICIENT NEW HOMES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	(¹)	(¹)
2012	-	(¹)	(¹)
2013	-	(¹)	(¹)
2014	-	(¹)	(¹)
2015	-	(1)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 45L.

Description

Contractors building energy-efficient new homes may be eligible for a tax credit of up to \$2,000. Manufacturers of manufactured energy-efficient homes may be eligible for a tax credit of up to \$1,000. Contractors and manufacturers claiming tax credits must submit certification from an eligible certifier before claiming the credit.

A certified energy-efficient new home qualifying for the tax credit must have annual heating and cooling energy consumption that is at least 50% below that of a comparable dwelling unit. The home must also be constructed in accordance with the standards of Chapter 4 of the 2003 International Energy Conservation Code, including supplements. Heating and cooling equipment efficiencies must correspond to the minimum allowed under the regulations established by the Department of Energy (DOE) pursuant to the National Appliance Energy Conservation Act of 1987 (P.L. 100-12) in effect at the time construction is completed. Finally, qualified homes must be constructed such that building envelope components

contribute at least 1/5 of the 50% in required energy consumption reduction. Manufactured homes meet the requirements above, but must have an annual energy consumption that is at least 30% below that of a comparable dwelling unit. For manufactured homes, at least 1/3 of the reduction must come from building envelope components. Alternatively, Energy Star labeled homes may qualify for the tax credit.

The energy-efficient new homes tax credit is part of the general business credit. It may be carried back for one year and carried forward for 20 years.

The tax credit is not available for energy-efficient new homes acquired after December 31, 2011.

Impact

In 2007, approximately 25,000 of the corporate tax returns filed claimed the credit for energy efficient new homes. Approximately 75% of these credits were claimed by those in the construction sector, while 17% were claimed by taxpayers in the manufacturing sector. Since 2007, the number of new homes being built has declined substantially. Recent improvements in new home construction rates may signal an improvement in the market. Yet, compared with 2007 levels, the housing market for new homes, including energy efficient homes, remains weak.

Rationale

The tax credit for energy-efficient new homes is designed to encourage contractors building new homes and manufacturers of homes to install energy efficient technologies in new homes. Generally, it is less expensive to install energy-efficient components in new residences that to retrofit existing property to incorporate energy-efficient upgrades.

The tax credit for energy-efficient new homes was introduced under the Energy Policy Act of 2005 (P.L. 109-58). Initially, the credit was set to expire at the end of 2007. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the credit through December 31, 2008. The Emergency Economic Stabilization Act of 2009 (P.L. 110-343) extended the deadline for claiming the credit through December 31, 2009. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 11-312) extended the deadline for claiming the credit through December 31, 2011.

Assessment

Oftentimes, tax incentives that promote specific types of investment are economically inefficient because they direct resources away from what would generally be their most productive use. Such interventions, however, may enhance economic efficiency if they address market failures.

There is a potential market failure in the market for energy-efficient new homes. Specifically, the potential market failure stems from the so-called principal-agent problem. In the case of a new home, builders make decisions regarding energy-efficient property. Since the builders are not the ultimate users of such property, and do not realize the energy savings associated with the property, they may not decide to incur the higher up-front costs typically associated with energy-efficient property. The problem is most likely to occur if the builder is not able to recoup the costs associated with energy-efficient installations when selling the home. It is not clear if market prices accurately reflect or capitalize the value of energy-efficienct improvements. If energy efficiency is not accurately reflected in housing prices, builders may underinvest in efficiency.

Selected Bibliography

Gillingham, Kenneth, Richard G. Newell, and Karen Palmer. "Energy Efficiency Economics and Policy," *Annual Review of Resource Economics*, v. 1. June 2009. pp. 597-620.

Internal Revenue Service (IRS), Statistics of Income (SOI), 2009 and IRS SOI Bulletin, Winter 2010.

Murtishaw, Scott, and Jayant Sathaye. Quantifying the Effect of the Principal-Agent Problem on U.S. Residential Energy Use. Energy Analysis Department, Lawrence Berkeley National Laboratory. LBNL-59773. August 12, 2006.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress.* Library of Congress, Congressional Research Service Report R41769. Washington, DC: Sept. 24, 2012.

Energy

CREDIT FOR CERTAIN ALTERNATIVE MOTOR VEHICLES THAT DO NOT MEET EXISTING CRITERIA FOR A OUALIFIED PLUG-IN ELECTRIC DRIVE MOTOR VEHICLE

Estimated Revenue Loss [In billions of dollars]

		L		
-	Fiscal year	Individuals	Corporations	Total
-	2011	(1)	(¹)	(¹)
	2012	(¹)	(¹)	(¹)
	2013	(¹)	(¹)	(¹)
	2014	(¹)	(¹)	(¹)
	2015	(¹)	$\binom{1}{2}$	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 30.

Description

Section 30 provides a 10% tax credit for the purchase of qualified low-speed, two-wheeled, and three-wheeled plug-in electric vehicles. The credit is capped at \$2,500. To be eligible for the credit, vehicles must be acquired for use or lease by the taxpayer, and not for resale. Sellers of qualifying vehicles to tax-exempt entities may claim the credit after fully disclosing the credit amount to the tax-exempt buyer. Additionally, to qualify for the credit, the taxpayer must use the vehicle within the United States. The credit is unavailable for plug-in electric vehicles claiming a tax credit as qualified plug-in electric drive vehicles under section 30D. For businesses claiming credits for depreciable property, the credit is treated as being part of the general business credit. The credit is available for vehicles acquired after February 17, 2009, and before January 1, 2012.

Qualified low-speed vehicles are those that have four wheels, have a gross weight of less than 3,000 pounds, can reach a minimum speed of 20 miles per hour (mph), have a maximum speed of 25 mph, and are manufactured primarily for use on public streets, roads, or highways. The vehicle must be propelled by a battery with a capacity of at least four kilowatt hours (kWh). In the case of two-wheeled and three-wheeled vehicles, the minimum battery capacity is 2.5 kWh.

Impact

In 2010, 10 manufacturers produced vehicles eligible for a credit under section 30. The Internal Revenue Service maintains a list of eligible vehicles.⁸

Rationale

The section 30 tax credit for low-speed, two-wheeled, and three-wheeled vehicles was created under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). The introduction of section 30 provided a separate credit for low-speed, two-wheeled, and three-wheeled vehicles. Low-speed electric vehicles acquired before December 31, 2009 may have qualified for the plug-in electric drive vehicle credit under section 30D. The purpose of modifying the credit was to allow certain low-speed vehicles to qualify for a reduced credit, as opposed to the more generous credit under section 30D.

Assessment

Tax credits for plug-in electric vehicles promote the purchase of such vehicles by changing relative prices. In the absence of market failures, such subsidies will be inefficient, because resources are diverted toward producing goods that would not have been cost-effective without the subsidy.

There are a number of reasons why there might be market failures in the market for conventional gasoline-and diesel-powered vehicles. First, gasoline consumption is believed to have negative environmental externalities, imposing social costs that consumers do not consider when making purchasing decisions. Thus, the equilibrium quantity of gasoline consumption might exceed the economically efficient, socially optimal level.

⁸ The list of vehicles eligible for the tax credit is 2010 is available from the IRS at http://www.irs.gov/businesses/article/0,,id=220785,00.html.

Second, conventional gasoline-powered motor vehicles might impose negative externalities through congestion and highway traffic accidents.

Subsidizing plug-in electric vehicles is one way of addressing the potential market failures associated with conventional gasoline powered vehicles. The government could also address the negative externalities associated with gasoline consumption by taxing gasoline directly. Directly taxing activities believed to be associated with negative externalities, such as gasoline consumption, is more economically efficient that subsidizing non-externality-generating alternative activities. Evidence in the market for hybrid vehicles suggests that rising gasoline prices have been more effective in promoting hybrid vehicle adoption than tax incentives.

If tax incentives fail to cause taxpayers to change their behavior, in this case stimulating the purchase of plug-in electric vehicles, such incentives would be economically inefficient. Tax provisions that reward consumers for purchases they would have made without the tax incentive provide a windfall to taxpayers, without increasing the activity the incentive was designed to promote (purchasing plug-in electric vehicles). While it is not clear whether tax incentives will be effective in increasing the market share of vehicles qualifying for a credit under section 30, evidence from the hybrid vehicle market does suggest that tax credits for alternative technology vehicles are not a primary driver of vehicle purchases.

Selected Bibliography

Beresteanu, Arie, and Shanjun Li. "Gasoline Prices, Government Support, and the Demand for Hybrid Vehicles in the U.S.," *International Economic Review.*, (forthcoming).

Diamond, David. "The Impact of Government Incentives for Hybrid-Electric Vehicles: Evidence from U.S. States," *Energy Policy*, vol. 37 (2009), pp. 972-983.

Chupp, Andrew B., Katie Myles, and E. Frank Stephenson. "The Tax Incidence of Hybrid Automobile Tax Preferences," *Public Finance Review*, vol. 38, no. 1 (January 2010), pp. 120-133.

Heutel, Garth, and Erich Muehlegger. Consumer Learning and Hybrid Vehicle Adoption. Harvard University John F. Kennedy School of Government, Working Paper no. 10-013, April 2010.

Internal Revenue Service. *Notice 2009-58: Qualified Plug-In Electric Vehicle Credit Under Section 30.* Internal Revenue Bulletin 2009-30. (July 27, 2009).

Sallee, James M. "The Surprising Incidence of Tax Credits for the Toyota Prius," *American Economic Journal: Economic Policy*, v.3, n.2, May 2011, pp. 189-219.

Sallee, James M. "The Taxation of Fuel Economy," paper presented at the National Bureau of Economic Research Tax Policy and the Economy Conference, Washington, DC, September 23, 2010.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC: May 2, 2011.

Sherlock, Molly F., and Margot Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress.* Library of Congress, Congressional Research Service Report R41769. Washington, DC: Sept. 24, 2012.

Yacobucci, Brent. Alternative Fuels and Advanced Technology Vehicles: Issues in Congress. Library of Congress, Congressional Research Service Report R40168. Washington, DC: January 19, 2012.

Energy

CREDIT FOR INVESTMENT IN ADVANCED ENERGY PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	0.7	0.7
2012	(¹)	0.4	0.4
2013	(¹)	0.2	0.2
2014	$\binom{1}{2}$	0.1	0.1
2015	(¹)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 48C.

Description

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) established a 30% tax credit for qualified investments in advanced energy property. A total of \$2.3 billion was allocated for advanced energy property investment tax credits. The tax credits were competitively awarded by the Department of Energy (DOE) and the Department of the Treasury.

Advanced energy projects that may qualify for the tax credit include those that re-equip, expand, or establish eligible manufacturing facilities. Facilities that produce the following types of property may qualify: (1) property designed to produce energy using a renewable resource (i.e., solar, wind, geothermal), (2) fuel cells, microturbines, or energy storage systems for use with electric or hybrid-electric vehicles, (3) advanced transmission technologies that support renewable generation (including storage), (4) carbon capture and sequestration property, (5) property designed to refine or blend renewable fuels, (6) energy conservation technologies (i.e., energy-saving lighting or smart grid technologies), (7) plug-in electric vehicles and

components, and (8) other advanced energy property designed to reduce greenhouse gas emissions.

Applications for the advanced energy manufacturing tax credit were accepted beginning August 14, 2009. It was required that final applications for the first allocation round be submitted by October 16, 2009. All available credits (\$2.3 billion) were allocated in this first allocation round.

Applications were evaluated jointly by the Department of Energy and the Department of the Treasury. Projects were selected based on their commercial viability, potential for domestic job creation, net reduction in air pollution or greenhouse gas emissions, potential for technological innovation and commercial deployment, levelized cost for energy generation, storage, or conservation, and the project's expected time span.

Generally, the tax credit is awarded when a project is placed in service. For multi-year projects, taxpayers may claim credits based on the project's progress expenditures. All projects must be completed within four years of tax credit acceptance. Taxpayers receiving a credit under section 48C cannot claim the energy investment tax credit (ITC) (discussed elsewhere in this compendium).

Impact

The advanced energy manufacturing tax credit was awarded to 183 projects across 43 states. In total, there were applications for \$10.9 billion in credits. The DOE and IRS determined that of these applications, \$8.1 billion of the funds requested were for eligible projects. The projects receiving the \$2.3 billion in tax credits awarded were selected using the criteria outlined above. The projects awarded tax credits under section 48C are expected to generate 17,000 jobs.

The tax credits were designed to address the U.S. position in the global advanced energy manufacturing marketplace. As of 2008, the U.S. had 16% of global wind manufacturing capacity, 6% of global solar manufacturing capacity, and less than 1% of global battery manufacturing capacity. As a result, the domestically produced content of installed renewable generation facilities is relatively low. In the mid-2000s, domestic content for the U.S. wind industry was 25%. That had increased to 50% by 2010, and was expected to reach 70% once the current round of manufacturing expansion is complete.

Rationale

The advanced energy manufacturing tax credit was established under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). The purpose of the tax credit was to promote the domestic green energy manufacturing sector with a focus on domestic job creation.

Assessment

As is the case with any investment tax credit, the effectiveness of the tax credit depends on how much additional investment was caused by the tax credit. Taxpayers that already had planned, but not yet started, renewable energy manufacturing projects may have been awarded tax credits, even if their projects would have moved forward without the tax incentive. Under this scenario, the tax credit represents a windfall benefit to the taxpayer and does not induce any additional installation of advanced energy manufacturing capacity.

Investment tax credits for advanced energy manufacturing projects reduce the cost of investment for qualifying projects, relative to other types of investment. Generally, investment subsidies that reallocate capital are economically inefficient; as such policies direct capital away from what would otherwise be its most productive use.

Tax credits for renewable energy manufacturing may be justified to the extent such incentives address environmental and energy security concerns. Specifically, traditional energy technologies generate negative externalities such as pollution and global climate change. Thus, subsidizing clean energy alternatives could help reduce reliance on fossil energy resources, possibly mitigating these negative externalities. Subsidizing clean energy alternatives, however, is less economically efficient than directly taxing activities and energy sources that have negative environmental consequences.

Finally, the advanced energy manufacturing tax credit could be relatively ineffective because it was enacted on a temporary basis. While temporary investment tax incentives may cause firms to act quickly to make investments within the credit window, it can also lead to investment uncertainty. Firms that did not receive a tax credit allocation in the first round may put off projects, while other firms may wait before undertaking advanced energy manufacturing projects to see if additional tax credits will be come available.

Selected Bibliography

Congressional Budget Office, Federal Financial Support for the Development and Production of Fuels and Energy Technologies, March 2012.

Hasset, Kevin A. and R. Glenn Hubbard. "Tax Policy and Business Investment." In *Handbook of Public Economics, Volume 3*, ed. Alan J. Auerbach and Martin Feldstein, pp. 1293-1343. New York: Elsevier Science. 2002.

Hungerford, Thomas L., and Jane G. Gravelle. *Business Investment and Employment Tax Incentives to Stimulate the Economy*. Library of Congress, Congressional Research Service Report R41034. Washington, D, July 21, 2010.

Metcalf, Gilbert M. "Investment in Energy Infrastructure and the Tax Code." In *Tax Policy and the Economy, Vol 24*, ed. Jeffery R. Brown. pp. 1-33. The University of Chicago Press. 2010.

Sherlock, Molly F. Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures. Library of Congress, Congressional Research Service Report R41227. Washington, DC, May 2, 2011.

Sherlock, Molly F., and Steven Maguire. *Tax-Favored Financing for Renewable Energy Resources and Energy Efficiency*. Library of Congress, Congressional Research Service Report R41573, Washington, DC, January 10, 2011.

Sherlock, Molly F. Energy Tax Incentives: Measuring Value Across Different Types of Energy Resources. Congressional Research Service Report R41593. Washington, DC: September 18, 2012.

Sherlock, Molly F., and Margot L. Crandall-Hollick. *Energy Tax Policy: Issues in the 112th Congress*. Library of Congress, Congressional Research Service Report R41769. Washington, DC: September 24, 2012.

The White House. Office of the Press Secretary, "President Obama Awards \$2.3 Billion for New Clean-Tech Manufacturing Jobs," press release, January 8, 2010.

- U.S. Congress. Senate Finance Committee. Statement of Henry Kelly Principal Deputy Assistant Secretary, Office of Energy Efficiency and Renewable Energy U.S. Department of Energy. Hearing on Clean Technology Manufacturing Competitiveness: The Role of Tax Incentives. May 20, 2010.
- U.S. Department of Energy: Energy Efficiency & Renewable Energy. 2009 Wind Technologies Report. August 2010.

Energy

SPECIAL RULE TO IMPLEMENT ELECTRIC TRANSMISSION RESTRUCTURING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011		1.8	1.8
2012		-0.2	-0.2
2013		-0.2	-0.2
2014		-0.2	-0.2
2015		-0.1	-0.1

Authorization

Section 451.

Description

Section 451(i) permits taxpayers to elect to recognize any capital gain from the sale of qualifying electricity transmission property to an independent transmission company, pursuant to a Federal Energy Regulatory Commission (FERC) restructuring policy, evenly over eight years beginning with the year of the sale. The sale proceeds must be reinvested in other electricity assets within four years. This special tax incentive was available for sales through December 31, 2011.

Impact

Generally, any gain realized from a sale or disposition of a capital asset is recognized in the tax year in which the gain was realized, unless there is a specific exemption or deferral—a taxpayer selling property recognizes any profits for tax purposes in the year of the sale. The recognition of gain over eight years, rather than in the year of sale, is a deferral, rather than a complete forgiveness, of tax liability—it is a delay in the recognition of income, hence in the payment of tax. The economic benefit derives from the reduction in the present value of the tax owed below

what the tax would otherwise be if it were required to be recognized in the year of sale. Transmission property is also depreciated over 15 years, which means that depreciation deductions are taken somewhat faster than economic depreciation. This lowers effective tax rates on the return to such investments.

Rationale

The deferral of gain on the sale of transmission assets was enacted in order to encourage energy transmission infrastructure reinvestment and assist those in the industry who are restructuring. It is intended to foster a more competitive industry by facilitating the unbundling of transmission assets held by vertically integrated utilities. Under restructuring, States and Congress have considered rules requiring the separate ownership of generation and distribution and transmission assets. However, vertically integrated electric utilities still own a large segment of the nation's transmission infrastructure. The tax provision encourages the sale of transmission assets by vertically integrated electric utilities—the unbundling of electricity assets—to independent system operators or regional transmission organizations, who would own and operate the transmission lines. The provision is intended to improve transmission management and service, and facilitate the formation of competitive electricity markets. Without this incentive, any gain from the forced sale of transmission assets, pursuant to a FERC (or other regulatory body) restructuring policy would be taxed as ordinary income (i.e., at the highest rates) all in the year of sale.

This provision is intended to promote restructuring of the electric utility industry away from the traditional monopoly structure and toward increased competition. The incentive was introduced as part of the energy tax provisions in comprehensive energy legislation; it was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357). The Energy Policy Act of 2005 (P.L. 109-58) extended deferral treatment from December 31, 2006, to December 31, 2007. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended this provision December 31, 2009. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended this provision through December 31, 2011.

Assessment

The restructuring of the electric power industry has, and may continue to result in significant reorganization of power assets. In particular, it may result in a significant disposition of transmission assets and possibly, depending on the nature of the transaction, trigger an income tax liability and

interfere with industry restructuring. Under an income tax system, the sale for cash of business assets subject to depreciation deductions triggers a tax on taxable income in the year of sale to the extent of any gain. Corporations pay capital gains on sales of capital assets, such as shares of other corporations. But gains on the sale of depreciable assets involve other rules. For example, sales of personal property, such as machinery, are taxed partly as capital gains and partly as ordinary income. The overall taxable amount is the difference between the sales price and basis, which is generally the original cost minus accumulated depreciation. That amount is taxed as ordinary income to the extent of previous depreciation allowances (depreciation is "recaptured").

Selected Bibliography

Boyce, John R. and Aidan Hollis. "Governance of Electricity Transmission Systems." *Energy Economics*, v. 27, March 2005. pp. 237 - 255.

Campbell, Richard J. Regulatory Incentives for Electricity Transmission—Issues and Cost Concerns. Library of Congress. Congressional Research Service Report R42068. Washington, DC: October 28, 2011.

Campbell, Richard J., and Adam Vann. *Electricity Transmission Cost Allocation*. Library of Congress. Congressional Research Service Report R41193. Washington, DC: September 7, 2011.

Jaccard, Mark. "The Changing Rationale for Government Intervention in the Electric Utility Industry." *Energy Policy*, v. 23. July 1995. pp. 579-592.

Joskow, Paul L. "Transmission Policy in the United States." *Utilities Policy*, v. 13. June 2005. pp. 95-115.

U.S. Congress, Joint Committee on Taxation. *Federal Tax Issues Relating to Restructuring of the Electric Power Industry*. Hearing before the Subcommittee on Long-Term Growth and Debt Reduction of the Senate Finance Committee, October 15, 1999. JCX 72-99.

Vogelsang, Ingo. "Electricity Transmission Pricing and Performance-Based Regulation." *Energy Journal*, v.27, 2006, pp. 97-127.

Natural Resources and Environment

EXCLUSION OF CONTRIBUTIONS IN AID OF CONSTRUCTION FOR WATER AND SEWER UTILITIES

Estimated Revenue Loss [In billions of dollars]

_	Fiscal year	Individuals	Corporations	Total
	2011	-	(¹)	(¹)
	2012	-	(¹)	(¹)
	2013	-	(¹)	(¹)
	2014	-	(¹)	(¹)
	2015	-	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 118(c), (d).

Description

Contributions in aid of construction are charges paid by utility customers, usually builders or developers, to cover the cost of installing facilities to service housing subdivisions, industrial parks, manufacturing plants, etc. In some cases, the builder/developer transfers completed facilities to the utility rather than paying cash to the utility to finance construction of the facilities.

Qualifying contributions in aid of construction received by regulated water and sewage disposal utilities which provide services to the general public in their service areas are not included in the utilities' gross income if the contributions are spent for the construction of the facilities within 2 years after receipt of the contributions. Service charges for starting or stopping services do not qualify as nontaxable capital contributions. Assets purchased with (or received as) qualifying contributions have no basis (hence, cannot be depreciated by the utility) and may not be included in the utility's rate base for rate-making purposes.

Impact

Before the Tax Reform Act of 1986 (TRA86), the special treatment described above applied to contributions in aid of construction received by regulated utilities that provide steam, electric energy, gas, water, or sewage disposal services. This treatment effectively exempted from taxation the services provided by facilities financed by contributions in aid of construction. The treatment was repealed by TRA86 but reinstated by the Small Business Job Protection Act of 1996 for water and sewage facilities only.

Repeal of the special treatment resulted in increases in the amounts utilities charge their customers as contributions in aid of construction. Before TRA86, a utility would charge its customers an amount equal to the cost of installing a facility. After TRA86, utilities had to charge an amount equal to the cost of the facility plus an amount to cover the tax on the contribution in aid of construction. This parallels the pricing of most other business services, for which companies must charge customers the actual cost of providing the service plus an amount to cover the tax on the income.

The higher cost associated with contributions in aid of construction as a result of the change in the TRA86 led to complaints from utility customers and initiated proposals to reverse the change. In response, the special treatment of contributions in aid of construction was reinstated — but only for water and sewage utilities — in the Small Business Job Protection Act of 1996. As a result of this reinstatement, water and sewage utility charges for contributions in aid of construction are lower than they would be if the contributions were still taxable. The charge now covers only the cost of the financed facility; there is little or no markup to cover taxes on the charge.

To the extent that the lower charges to builders and developers for contributions in aid of construction are passed on to ultimate consumers through lower prices, the benefit from this special tax treatment accrues to consumers. If some of the subsidy is retained by the builders and developers because competitive forces do not require it to be passed forward in lower prices, then the special tax treatment also benefits the owners of these firms.

Rationale

The stated reason for reinstating the special treatment of contributions in aid of construction for water and sewage utilities was concern that the changes made by the Tax Reform Act of 1986 may have inhibited the

development of certain communities and the modernization of water and sewage facilities.

Assessment

The contribution in aid of construction tax treatment allows the utility to write off or expense the cost of the financed capital facility in the year it is put in place rather than depreciating it over its useful life. This treatment, in effect, exempts the services provided by the facility from taxation and thereby provides a special subsidy. Absent a public policy justification, such subsidies distort prices and undermine economic efficiency.

In repealing the special tax treatment of contributions in aid of construction in TRA86, Congress determined that there was no public policy justification for continuing the subsidy. In reinstating the special tax treatment for water and sewage utilities in the Small Business Job Protection Act of 1996, Congress determined that there was an adequate public policy justification for providing the subsidy to these particular utilities.

Selected Bibliography

Committee on Finance, *Small Business Job Protection Act of 1996*, Report 104-281, U.S. Senate, 104th Congress, 2d Session, June 18, 1996, pp. 136-137.

Conference Report, *Small Business Job Protection Act of 1996*, Report 104-737, U.S. House of Representatives, 104th Congress, 2d Session, August 1, 1996, pp. 158-160.

Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1986, Joint Committee Print, JCS-10-87, May 4, 1987, pp. 544-547.

Joint Committee on Taxation, General Explanation of Tax Legislation Enacted in 1997, Joint Committee Print JCS-23-97, December 17, 1997, 40-41.

Maguire, Steven. *Tax Credit Bonds: Overview and Ana;ysis.* Library of Congress, Congressional Research Service Report R40523, September 20, 2012.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638, June 19, 2012.

Matheson, Thornton. "Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2007, pp. 155-162.

Natural Resources and Environment

SPECIAL TAX RATE FOR NUCLEAR DECOMMISSIONING RESERVE FUND

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	**	0.9	0.9
2012	-	1.0	1.0
2013	-	1.1	1.1
2014	-	1.1	1.1
2015	<u>-</u>	1.2	1.2

Authorization

Section 468A.

Description

Taxpayers who are responsible for the costs of decommissioning nuclear power plants (e.g., utilities) can elect to create reserve funds to be used to pay for decommissioning. The funds receive special tax treatment: amounts contributed to a reserve fund are deductible in the year made and are not included in the taxpayer's gross income until the year they are distributed, thus effectively postponing tax on the contributed amounts. Amounts actually spent on decommissioning are deductible in the year they are made. The fund's investments, however, are subject to a 20% tax rate — a lower rate than that which applies to most other corporate income. The amount that can be contributed to an account is the amount the Internal Revenue Service (IRS) determines would provide funding for the actual decommissioning costs when they occur.

Impact

As noted above, amounts contributed to a qualified fund are deductible in the year contributed but are taxed when withdrawn to pay for

decommissioning costs. By itself, such treatment would constitute a tax deferral. However, full taxation of the investment earnings of the tax-deferred funds would offset any benefit from the deferral. Accordingly, taken alone, only current law's reduced tax rate poses a tax benefit.

The likely economic effect of the reduced rates is to encourage outlays on nuclear decommissioning because the tax-saving funds are contingent on making such outlays. At the same time, however, to the extent that decommissioning costs are required by government regulations to be incurred with or without the special tax treatment, the reduced rates pose an incentive to invest in nuclear power plants. The benefit of the favorable tax treatment likely accrues to owners of electric utilities that use nuclear power and to consumers of the electricity they produce.

Rationale

The special decommissioning funds were first enacted by the Deficit Reduction Act of 1984 (Public Law 98-369), but the funds' investment earnings were initially subject to tax at the highest corporate tax rate (46%, at the time). The funds were established because Congress believed that the establishment of segregated reserve funds was a matter of "national importance." At the same time, however, Congress "did not intend that this deduction should lower the taxes paid by the owners...in present value terms," and thus imposed full corporate taxes on funds' investment earnings.

The reduced tax rate was enacted by the Energy Policy Act of 1992 (Public Law 102-486). The rate was reduced to provide "a greater source of funds" for decommissioning expenses. Congress in 2000 approved a measure that would eliminate the "cost of service" limitation on contributions to funds (leaving intact, however, the limit posed by the IRS determination). The Energy Tax Incentives Act of 2005 (Public Law 109-58) modified the rules on the contribution limits to allow larger deductible contributions to a decommissioning fund.

Assessment

As noted above, the reduced tax rates may provide a tax benefit linked with amounts contributed to qualified funds. The impact of the resulting tax benefit on economic efficiency depends in part on the effect of non-tax regulations governing decommissioning. Nuclear power plants that are not appropriately decommissioned might impose external pollution costs on the economy that are not reflected in the market price of nuclear energy. To the

extent government regulations require plants to be shut down in a manner that eliminates pollution, this "market failure" may already be corrected and any tax benefit is redundant. To the extent regulations do not require effective decommissioning, the tax benefit may abet economic efficiency by encouraging decommissioning outlays. The equity effect of the tax benefit is distinct from regulatory fixes of pollution. It is likely that decommissioning costs required by regulation are borne by utility owners and consumers of nuclear energy. The tax benefit probably shifts a part of this burden to taxpayers in general. Note also, however, that the reduced rates may simply compensate for the delayed deduction of decommissioning costs.

Selected Bibliography

Khurana, Inder K., Richard H. Pettway, and K.K. Raman. "The Liability Equivalence of Unfunded Nuclear Decommissioning Costs." *Journal of Accounting and Public Policy*, vol. 20, no. 2, Summer 2001.

Palmer, Stephen L. "A Suggestion for Federal Tax Treatment of Accrued Nuclear Power Plant Decommissioning Expenses." *Tax Lawyer*, vol. 35, Spring 1982, pp. 779-797.

- U.S. Congress, Joint Committee on Taxation. Federal Tax Issues Relating to Restructuring of the Electric Power Industry. Joint Committee Print, 106th Congress, 1st session. Washington, DC: Government Printing Office, October 15, 1999, pp. 39-43.
- . General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, Joint Committee Print, 98th Congress, 2d session. Washington, DC: Government Printing Office.
- . General Explanation of Tax Legislation Enacted in the 109th Congress. Joint Committee Print,109th Congress, 2d Session. Washington, DC: Government Printing Office, 2007, pp. 32-35.
- U.S. Department of the Treasury. General Explanations of the Administration's Fiscal Year 2001 Revenue Proposals. Washington, DC: 2000, pp. 117-118.
- U.S. General Accounting Office, Nuclear Regulation: NRC Needs More Effective Analysis to Ensure Accumulation of Funds to Decommission Nuclear Power Plants. Report GAO-04-32, October 2003.

Zimmerman, Raymond A. and Jeri Farrow. "Decommissioning Funds: Snagged on Tax Law?" *Public Utilities Fortnightly*, vol. 139, April 1, 2001, p. 34.

Natural Resources and Environment

SPECIAL DEPRECIATION ALLOWANCE FOR CERTAIN REUSE AND RECYCLING PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	(¹)	(¹)
2012	(¹)	(¹)	(¹)
2013	$\binom{1}{2}$	(¹)	(¹)
2014	$\binom{1}{2}$	(¹)	(¹)
2015	(¹)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 168.

Description

Certain reuse and recycling property is eligible for a special depreciation allowance that allows 50 percent of the cost to be expensed when incurred. The remainder is depreciated based on the regular class life. To qualify, the property must be machinery and equipment, not including buildings but including software necessary to operate the equipment, used exclusively to collect, distribute, or recycle qualified reuse and recyclable materials. Recycling equipment includes property used for sorting. It does not include rolling stock or other equipment used to transport reuse and recyclable materials. Reuse and recyclable material means scrap plastic, scrap glass, scrap textiles, scrap rubber, scrap packaging, recovered fiber, scrap ferrous and nonferrous metals, or electronic scrap generated by an individual or business. Electronic scrap includes cathode ray tubes, flat panel screens or similar video display devices with a screen size greater than 4 inches measured diagonally, or central processing units. Property must have a useful life of at least five years. It applies to property placed into service

(or with construction begun in the case of self-constructed property) after August 31, 2008.

Impact

Allowing half the cost to be expensed when incurred provides a benefit because a tax deduction today is worth more than a tax deduction in the future, due to the time value of money (interest). Expensing produces the same reduction in effective tax rate regardless of the durability of the asset as long as current depreciation reflects economic decline and thus is neutral. The effective tax rate is u(1-x)/(1-ux), where x is the share expensed and u is the statutory tax rate; in the case of 50 percent expensing and a 35 percent ax rate the effective tax rate falls by 40 percent to an effective 21 percent rate. Since most equipment assets are estimated to have depreciation more generous than economic depreciation, both beginning and effective tax rates are lower and the reduction is proportionally less.

Although they produce a relatively neutral reduction in the tax rate, reductions in tax burden reduce the cost of operating proportionally more for long lived assets, because the rate of return is more important in cost for more durable facilities. One way to express this difference is in the rental price (or payment that would be required to rent an asset). It is closely related to an equivalent reduction in acquisition cost. For example, for five year assets, the present value of depreciating the asset at a 5 percent real rate of return and a 2 percent inflation rate is 87 cents for each dollar of cost. Allowing half of the cost to be deducted immediately (with a value of \$1) at a 35 percent tax rate would be the equivalent of a 2.3 percent reduction in acquisition cost. For seven year property, the most common depreciation class for equipment, the present value is 83 cents for each dollar of investment and the expensing is equivalent to a 3% reduction in cost. Thus, the reduction in overall cost of recycling (which also requires labor and material as well as the use of capital) is relatively small due to this provision.

Rationale

The recycling provision was adopted by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) which included a number of provisions relating to energy conservation. Although no specific rationale was provided, stand alone bills introduced to provide this benefit referred to the energy savings from recycling.

Assessment

In the absence of external effects, it is efficient for investments to face the same effective tax rate. Subsidies to recycling would be justified if recycling reduces external effects such as pollution. Initial concerns about land use that were originally used to justify recycling have now been supplanted largely by benefits for energy use and pollution from recycling. While there was an initial debate about whether recycling was not only cost effective, but whether it actually reduced energy consumption, most studies have indicated that it does. Energy saving is, however, greater for some commodities than others (e.g., aluminum as opposed to glass).

Another justification for subsidies to recycling is that many of the industries that produce virgin materials are eligible for tax subsidies as well (paper and mining), although an alternative policy would be to reduce those existing subsidies rather than grant new ones for recycling. Certain industries (e.g., aluminum) also benefit from inexpensive hydroelectric power.

If a subsidy is justified for reuse and recycling property, it is not clear that a tax subsidy is the best alternative. Recycling issues are largely in the domain of local governments, and the cost effectiveness depends on many other factors (such as density). Local governments have alternative methods, such as requiring recycling and, in some cases, imposing taxes on trash by quantity (although the evidence does not suggest the latter approach is very successful). At the same time, some of the pollution effects of using energy are national (or even global). Providing a federal subsidy to lower costs might induce more localities to be involved in recycling. The subsidies should result in a greater demand and higher price for scrap. However, for communities already involved in recycling, these benefits would appear in lower costs for trash collection overall, with no specific incentive for recycling.

Selected Bibliography

Clement, Douglas. "Recycling: Righteous or Rubbish." *Fedgazette*. Federal Reserve Bank of Minneapolis, March 1, 2005.

Fullerton, Don and Thomas C. Kinaman. "Household Responses to Pricing Garbage by the Bag," *American Economic Review*, Vol. 86, September 1996, pp. 971-984.

Hutchinson, Alex, "Is Recycling Worth It?" *Popular Mechanics*, December 1, 2008.

National Recycling Coalition, Inc. U.S. Recycling Economic Information Study, July 2001.

[http://www.epa.gov/osw/conserve/rrr/rmd/rei-rw/pdf/n_report.pdf] "The Truth About Recycling," *The Economist*, June 9, 2007.

Natural Resources and Environment

EXPENSING OF MULTIPERIOD TIMBER-GROWING COSTS; AMORTIZATION AND EXPENSING OF REFORESTATION EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	0.1	0.2
2012	0.1	0.1	0.2
2013	0.1	0.1	0.2
2014	0.1	0.1	0.2
2015	0.1	0.1	0.2

Authorization

Sections 194, 263A(c)(5).

Description

Most of the production costs of growing timber may be expensed (fully deducted in the year incurred). Production costs include indirect carrying costs, such as interest and property taxes, as well as direct costs, such as disease and pest control and clearing brush. Taxpayers may also deduct up to \$10,000 of reforestation expenditures incurred for each qualified timber property in any tax year; expenditures exceeding this cap may be amortized over 84 months. Qualifying reforestation expenditures include only direct costs, such as expenditures for preparation of the site, for seeds or seedlings, and for labor and tools. Most other industries follow the uniform capitalization rules, under which production costs are capitalized (added to the basis) and deducted when the product is sold.

Impact

Being able to expense production costs rather than capitalize them accelerates cost recovery. The time-value of taxes saved in earlier years

lowers the average effective tax rate on timber-growing, calculated over the multi-year production period for timber. Most of the tax benefit goes to corporations, and is thereby likely to mostly benefit higher-income individuals.

Rationale

Permitting the costs of timber-growing to be expensed was apparently part of a general perception that these were maintenance costs, and thus deductible as ordinary costs of a trade or business. A series of revenue rulings and court cases over the years distinguished between which expenses could be deducted and which expenses had to be capitalized (for example, I. T. 1610 in 1923, an income tax unit ruling; Mim. 6030 in 1946, a mimeographed letter ruling; Revenue Ruling 55-412 in 1955; and Revenue Ruling 66-18 in 1966).

The Tax Reform Act of 1986 (P.L. 99-514) included uniform capitalization rules which required production expenses to be capitalized in most cases. Timber was among the few categories of property excepted from these rules. No specific reason was given for exempting timber, but the general reason given for exceptions to the uniform capitalization rules was that they were cases where its application "might be unduly burdensome." Although the 1986 act repealed the 10-percent investment tax credit for most property placed in service after 1985, it retained the credit for expenditures that qualify for 84-month amortization, which includes reforestation expenditures.

Expensing of the first \$10,000 of reforestation expenditures was introduced by the Recreational Boating Safety and Facilities Improvement Act of 1980 (P.L. 96-451). The expensing provision replaced an existing reforestation credit (Code Sec. 48). The change was made to simplify the treatment of reforestation costs. The basic purpose of the incentive was to encourage reforestation. The American Jobs Creation Act of 2004 (P.L. 108-357) provided for an election to claim the reforestation deduction. The 2004 act also granted taxpayers the ability to revoke an election made prior to the Act to treat the cutting of timber as a sale or exchange. The Gulf Opportunity Zone Act of 2005 (P.L. 109-135) temporarily raised the cap on the reforestation deduction for small timber producers, for expenditures undertaken in the GO Zone through January 1, 2008; taxpayers holding 500 or more acres of qualified timber property at any time during the taxable year were not eligible. Congress may choose to extend this provision, but has yet to do so as of the publication date of this report.

Assessment

Supporters of the tax subsidy argue that timber-growing provides benefits to society in general, such as an improved environment, recreational opportunities, and natural vistas (economists call these positive externalities). Because private investors are not compensated for these external benefits, they would tend to invest less in timber-growing and reforestation than may be socially desirable. A tax subsidy may encourage increased forestry investment. Still, some argue that the tax-incentive approach should be compared with alternatives such as direct subsidies or direct ownership of timber lands by the government.

The cap on the deduction for reforestation expenditures has remained at \$10,000—the level set when the provision was first enacted in 1980. Inflation over thirty years has consequently reduced the real value of the deduction to a comparatively inconsequential level.

Selected Bibliography

Society of American Foresters, Study Group on Forest Taxation. "Forest Taxation," *Journal of Forestry*, Vol. 78 (July 1980), pp. 1-7.

- U.S. Congress, House of Representatives. *Conference report 108-755 to accompany H.R. 4520, American Jobs Creation Act of 2004,* 108th Congress, 2d Session, October 7, 2004.
- , Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986. May 4, 1987, pp. 508-509.
- , Joint Economic Committee. "The Federal Tax Subsidy of the Timber Industry," by Emil Sunley, in *The Economics of Federal Subsidy Programs*, 92nd Congress, 2nd session, July 15, 1972.
- U.S. Department of Agriculture, Forest Service. *Forest Landowner's Guide to the Federal Income Tax*, Agriculture Handbook No. 718, Washington, DC, U.S. Government Printing Office, March 2001.
- U.S. Department of the Treasury. Special Expensing and Amortization Rules in Tax Reform for Fairness, Simplicity, and Economic Growth, Vol. 2, Nov. 1984, pp. 299-313.
- U.S. General Accounting Office. Selected Tax Provisions Affecting the Hard Minerals Mining and Timber Industries, Fact Sheet for the Honorable John Melcher, United States Senate, June 1987.
- . Forest Service: Timber Harvesting, Planting, Assistance Programs and Tax Provisions, Briefing Report to the Honorable Sander M. Levin, House of Representatives, April 1990.

Natural Resources

TAX EXCLUSION FOR EARNINGS OF CERTAIN ENVIRONMENTAL SETTLEMENT FUNDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	**	(¹)	(1)
2012	-	(¹)	$\binom{1}{2}$
2013	-	(¹)	(¹)
2014	-	$\binom{1}{2}$	(¹)
2015	-	(¹)	(1)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 468B.

Description

In general, this section discusses the tax treatment of designated settlement funds for certain environmental claims. The cleanup of hazardous waste sites under the Superfund program sometimes is paid for out of environmental settlement funds, which serve the same purpose as escrow accounts. These funds arise out of consent decrees involving the Environmental Protection Agency (EPA) and parties held responsible for the site contamination and issued by federal district courts. The EPA uses the funds in the accounts to resolve claims against responsible parties under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

An environmental settlement fund will be exempt from taxation if the following conditions are satisfied: 1) it is established pursuant to a consent decree entered by a judge of a United States District Court; 2) it is created for the receipt of settlement payments as directed by a government entity for the

sole purpose of resolving or satisfying one or more claims asserting liability under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980; 3) the authority and control over the expenditure of funds therein (including the expenditure of contributions thereto and any net earnings thereon) is with such government entity; and 4) upon termination, any remaining funds will be disbursed to such government entity (in this case the EPA) for use in accordance with applicable law.

Impact

The tax expenditure tied to the provision lies in the fund income that escapes taxation. In effect, the provision lowers the after-tax cost to a taxpayer of reaching a settlement with the EPA over cleaning up hazardous waste sites identified through the Superfund program.

Rationale

The provision entered the tax code through the Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-222) and was further modified in the Tax Relief and Health Care Act of 2006 (P.L. 109-432). Proponents said it was needed to clarify the tax status of income earned by an environmental escrow account and to give parties deemed responsible for hazardous waste sites an incentive to enter promptly into an agreement with the EPA over cleaning up those sites. The funds in such an account are used to pay for the cost of cleanup operations.

Assessment

Many would agree that it is in the public interest for the parties responsible for hazardous waste sites to act as quickly as possible to clean up the sites at their own expense. The provision is intended to promote such a result.

Yet it is unclear from what little information about the provision is available to what extent it has aided or expedited the cleanup of Superfund hazardous waste sites. Responsible parties end up paying for the cleanup of most of these sites. The EPA has reported that so-called potentially responsible parties have conducted the cleanup of 70 percent of the worst sites, those listed in the EPA's National Priorities List (NPL). For the remaining 30 percent of NPL sites, the EPA cannot locate the responsible parties, or those it has found lack the funds to share the cost of the cleanup. In those cases, the EPA draws on funds in the Superfund trust fund to pay for the cleanup. The provision may remove a barrier to increasing the proportion

of contaminated sites cleaned up by responsible parties. If this proportion were to rise, less federal money would be needed to do the cleanup.

Selected Bibliography

Bearden, David M. Comprehensive Environmental Response, Compensation, and Liability Act: A Summary of Superfund Cleanup Authorities and Related Provisions of the Act. Congressional Research Service Report R41039. Washington, DC: June 14, 2012.

Forst, David L., Charles E. Hodges II, Edward M. Manigault, David J. Kautter, and Belinda F Eichell. "Escrows Set Up by Products-Liability Defendant Were Qualified Settlement Funds." *Journal of Taxation*, vol. 105, no. 2, August 2006, pp. 120-123.

Reisch, Mark and Jonathan L. Ramseur. Superfund: Implementation and Selected Issues. Congressional Research Service Report RL33426. Washington, DC: November 26, 2007.

- U.S. Congress. Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in the 109th Congress. Joint committee print JCS-1-07. Washington, DC: 2007, pp. 269-270.
- , U.S. Government Accountability Office. Superfund: Funding and Reported Costs of Enforcement and Administration. GAO-08-841R. Washington, DC: July 18, 2008.

Wood, Robert W. "Rulings Makes Qualified Settlement funds More Attractive." *Tax Notes*, May 8, 2006, pp. 673-677.

Wood, Robert W. "468B Qualified Settlement Funds Pending Appeal?" *Tax Notes*, July 12, 2010, pp. 207-210.

Natural Resources and Environment

GAIN OR LOSS IN THE CASE OF TIMBER, COAL, OR DOMESTIC IRON ORE

Estimated Revenue Loss [In billions of dollars]

Total Fiscal year **Individuals** Corporations 0.404 2011 0.4 0.4 2012 0.40.42013 0.5 0.52014 0.5 0.5 2015

Authorization

Sections 631, 1221, and 1231.

Description

A taxpayer who has held standing timber or the right to cut timber for a year (including ornamental evergreens cut after six years) may elect to treat the income from the stand or cut timber as a capital gain. Lessors of coal mining or iron ore rights who retain an economic interest in production may also treat income as a capital gain. Percentage depletion is not available to the lessor when tax rates on capital gains are lower than ordinary rates.

Impact

Capital gains treatment benefits individuals (corporate gains are taxed at ordinary rates). Capital gains treatment of timber departs from the general treatment of sale of inventory. For coal and iron ore, the benefit is offset by the loss of percentage depletion. Since percentage depletion is limited to 50 percent of net income and is in excess of cost depletion, the capital gains treatment, at current rates, is more beneficial even when percentage depletion is large relative to net income for high income taxpayers.

Rationale

Treatment of gain from cutting timber was adopted in 1943, in part to equalize the treatment of those who sold timber as a stand (where income would automatically be considered a capital gain) and those who cut timber. This treatment was also justified to encourage timber conservation through selective cutting and because taxing gain at ordinary rates was unfair because of the long development time. Capital gains treatment for coal royalties was added in 1951 to equalize the treatment of coal lessors, to provide benefits to long-term lessors with low royalties who were unlikely to benefit from percentage depletion, and to encourage coal production. Similar treatment of iron ore was enacted in 1964 to equalize treatment and to encourage production of iron ore in response to foreign competition.

Assessment

In general, investments should be treated neutrally to maximize economic efficiency unless there are market failures (such as external benefits) that justify subsidies. Unlike expensing provisions that allow the deduction of costs of developing and maintaining a timber stand, and could be justified on environmental grounds, the capital gains treatment does not distinguish between cutting old growth timber and planting new stands. Deforestation is a contributor to climate change, and to the extent that the provision encourages cutting of existing timber, the provision could be harmful to the environment. Arguments are sometimes made to justify subsidies to mining on the basis of risk and protection of domestic industry, but it is unclear whether these problems represent true present market failures, and these industries also may have negative environmental effects.

Selected Bibliography

Agria, Susan. "Special Tax Treatment of the Minerals Industries," in Arnold C. Harberger and Martin J. Bailey, eds. *The Taxation of Income from Capital*, Washington, D.C.: Brookings Institution, 1969, pp. 77-122.

Sheikh, Pervaze A. *Deforestation and Climate Change*, Congressional Research Service Report R41144, March 24, 2010.

Sunley, Emil M. "The Federal Tax Subsidy of the Timber Industry," in U.S. Congress, Joint Economic Committee, *The Economics of Federal Subsidy Programs*, Part 3 — Tax Subsidies, July 1972, pp. 317-342.

Natural Resources and Environment

EXCESS OF PERCENTAGE OVER COST DEPLETION: NONFUEL MINERALS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	0.1	0.1
2012	(1)	0.1	0.1
2013	(¹)	0.1	0.1
2014	(1)	0.1	0.1
2015	(¹)	0.1	0.1

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 611, 612, 613, and 291.

Description

Firms that extract minerals, ores, and metals from mines are permitted a deduction to recover their capital investment, which depreciates due to the physical and economic depletion of the reserve as the mineral is recovered (section 611).

There are two methods of calculating this deduction: cost depletion, and percentage depletion. Cost depletion allows for the recovery of the actual capital investment — the costs of discovering, purchasing, and developing a mineral reserve — over the period during which the reserve produces income. Each year, the taxpayer deducts a portion of the adjusted basis (original capital investment less previous deductions) equal to the fraction of the estimated remaining recoverable reserves that have been extracted and sold. Under this method, the total deductions cannot exceed the original capital investment.

Under percentage depletion, the deduction for recovery of capital investment is a fixed percentage of the "gross income" — *i.e.*, sales revenue — from the sale of the mineral. Under this method, total deductions typically exceed the capital invested.

Section 613 states that mineral producers must claim the higher of cost or percentage depletion. The percentage depletion allowance is available for many types of minerals, at rates ranging from 5 percent (for clay, sand, gravel, stone, etc.) to 22 percent (for sulphur, uranium, asbestos, lead, etc.).

Metal mines generally qualify for a 14 percent depletion, except for gold, silver, copper, and iron ore, which qualify for a 15 percent depletion. The percentage depletion rate for foreign mines is generally 14 percent.

Percentage depletion is limited to 50 percent of the taxable income from the property. For corporate taxpayers, section 291 reduces the percentage depletion allowance for iron ore by 20 percent. Allowances in excess of cost basis are treated as a preference item and taxed under the alternative minimum tax.

Impact

Historically, generous depletion allowances and other tax benefits reduced effective tax rates in the minerals industries significantly below tax rates on other industries, providing incentives to increase investment, exploration, and output, especially for oil and gas. It is possible for cumulative depletion allowances to total many times the amount of the original investment. The combination of this subsidy and the deduction of exploration and development expenses represents a significant boon to mineral producers that are eligible for both. In addition, the Mining Law of 1872 permits U.S. citizens and businesses to freely prospect for hard rock minerals on federal lands, and allows them to mine the land if an economically recoverable deposit is found. No federal rents or royalties are imposed upon the sale of the extracted minerals. A prospecting entity may establish a claim to an area that it believes may contain a mineral deposit of value and preserve its right to that claim by paying an annual holding fee of \$100 per claim. Once a claimed mineral deposit is determined to be economically recoverable, and at least \$500 of development work has been performed, the claim holder may apply for a "patent" to obtain title to the surface and mineral rights. If approved, the claimant can obtain full title to the land for \$2.50 or \$5.00 per acre.

Issues of principal concern are the extent to which percentage depletion:

- (1) decreases the price of qualifying minerals, and therefore encourages their consumption;
 - (2) bids up the price of exploration and mining rights; and
- (3) encourages the development of new deposits and increases production.

Most analyses of percentage depletion have focused on the oil and gas industry, which — before the 1975 repeal of percentage depletion for major oil companies — accounted for the bulk of percentage depletion. There has been relatively little analysis of the effect of percentage depletion on other industries. The relative value of the percentage depletion allowance in reducing the effective tax rate of mineral producers is dependent on a number of factors, including the statutory percentage depletion rate, income tax rates, and the effect of the net income limitation.

Rationale

Provisions for a depletion allowance based on the value of the mine were made under a 1912 Treasury Department regulation (T.D. 1742), but this was never effectuated.

A court case resulted in the enactment, as part of the Tariff Act of 1913, of a "reasonable allowance for depletion" not to exceed five percent of the value of output. This statute did not limit total deductions; Treasury regulation No. 33 limited total deductions to the original capital investment.

This system was in effect from 1913 to 1918, although in the Revenue Act of 1916, depletion was restricted to no more than the total value of output, and, in the aggregate, to no more than capital originally invested or fair market value on March 1, 1913 (the latter so that appreciation occurring before enactment of income taxes would not be taxed).

On the grounds that the newer mineral discoveries that contributed to the war effort were treated less favorably, discovery value depletion was enacted in 1918. Discovery depletion, which was in effect through 1926, allowed deductions in excess of capital investment because it was based on the market value of the deposit after discovery. In 1921, because of concern with the size of the allowances, discovery depletion was limited to net income; it was further limited to 50 percent of net income in 1924.

For oil and gas, discovery value depletion was replaced in 1926 by the percentage depletion allowance, at the rate of 27.5 percent. This was due to the administrative complexity and arbitrariness, and due to its tendency to establish high discovery values, which tended to overstate depletion deductions

For other minerals, discovery value depletion continued until 1932, at which time it was replaced by percentage depletion at the following rates: 23 percent for sulphur, 15 percent for metal mines, and 5 percent for coal.

From 1932 to 1950, percentage depletion was extended to most other minerals. In 1950, President Truman recommended a reduction in the top depletion rates to 15 percent, but Congress disagreed. The Revenue Act of 1951 raised the allowance for coal to 10 percent and granted it to more minerals.

In 1954, still more minerals were granted the allowance, and foreign mines were granted a lower rate. In 1969, the top depletion rates were reduced and the allowance was made subject to the minimum tax. The Tax Equity and Fiscal Responsibility Act of 1982 reduced the allowance for corporations that mined coal and iron ore by 15 percent. The Tax Reform Act of 1986 raised the cutback in corporate allowances for coal and iron ore from 15 percent to 20 percent.

Assessment

Standard accounting and economic principles state that the appropriate method of capital recovery in the mineral industry is cost depletion adjusted for inflation. The percentage depletion allowance permits mineral producers to continue to claim a deduction even after all the investment costs of acquiring and developing the property have been recovered. Thus it is a mineral production subsidy rather than an investment subsidy. In cases where a taxpayer has obtained mining rights relatively inexpensively under the provisions of the Mining Law of 1872, it can be argued that such taxpayers should not be entitled to the additional benefits of the percentage depletion provisions.

As a production subsidy, however, percentage depletion is economically inefficient, encouraging excessive development of existing properties rather than exploration of new ones. Although accelerated depreciation for non-mineral assets may lower effective tax rates by speeding up tax benefits, these assets cannot claim depreciation deductions in excess of investment.

However, arguments have been made to justify percentage depletion on grounds of unusual risks, the distortions in the corporate income tax, and national security, and to protect domestic producers. Mineral price volatility alone does not necessarily justify percentage depletion.

Percentage depletion may not be the most efficient way to increase mineral output. Percentage depletion may also have adverse environmental consequences, encouraging the use of raw materials rather than recycled substitutes.

Selected Bibliography

Andrews-Speed, Philip, and Christopher Rogers. "Mining Taxation on Issues for the Future," *Resources Policy*, v. 25. 1999, pp. 221-227.

Anderson, Robert D., Alan S. Miller, and Richard D. Spiegelman. "U.S. Federal Tax Policy: The Evolution of Percentage Depletion for Minerals," *Resources Policy*, v. 3. September 1977, pp. 165-176.

Conrad, Robert F. "Mining Taxation: A Numerical Introduction," *National Tax Journal*, v. 33. December 1980, pp. 443-449.

Crowson, Philip. Inside Mining: The Economics of the Supply and Demand of Minerals and Metals. London: Mining Journal Books, 1998.

Davidson, Paul. "The Depletion Allowance Revisited," *Natural Resources Journal*, v. 10. January 1970, pp. 1-9.

Dorsey, Christine. "Clinton Administration Revives Plan to Revoke Mining Tax Break." Las Vegas Review — Journal. February 10, 2000. p. 4D.

Fenton, Edmund D. "Tax Reform Act of 1986: Changes in Hard Mineral Taxation," Oil and Gas Tax Quarterly, v. 36. September 1987, pp. 85-98.

Frazier, Jessica and Edmund D. Fenton. "The Interesting Beginnings of the Percentage Depletion Allowance," *Oil and Gas Tax Quarterly*, v. 38. June 1990, pp. 697-712.

Lagos, Gustavo. "Mining Investment and Compensation — Mineral Taxation and Investment." *Natural Resources Forum.* August 1993.v.17.

Lazzari, Salvatore. The Effects of the Administration's Tax Reform Proposal on the Mining Industry. Library of Congress, Congressional Research Service Report 85-WP. Washington, DC: July 29, 1985.

— . The Federal Royalty and Tax Treatment of the Hard Rock Minerals Industry: An Economic Analysis. Library of Congress, Congressional Research Service. CRS Report RL34268. Washington, DC: June 13, 2008.

Muzondo, Timothy R. "Mineral Taxation, Market failure, and the Environment." *International Monetary Fund. Staff Papers* - International Monetary Fund. March 1993.v.40. Washington DC., pp. 152-178.

Randall, Gory. "Hard Mineral Taxation-Practical Problems," *Idaho Law Review*, v. 19. Summer 1983, pp. 487-503.

Tripp, John D., Hugh D. Grove, and Michael McGrath. "Maximizing Percentage Depletion in Solid Minerals," *Oil and Gas Tax Quarterly*, v. 30. June 1982, pp. 631-646.

Updegraft, Kenneth E., and Joel D. Zychnick. "Transportation of Crude Mineral Production by Mine Owners and its Effect on Hard Minerals Depletion Allowance," *Tax Lawyer*, v. 35. Winter 1982, pp. 367-387.

U.S. General Accounting Office. Selected Tax Provisions Affecting the Hard Minerals Mining and Timber Industry. GAO/GGD-87-77 FS. June 1987. Washington, DC: U.S. Government Printing Office, June 1987.

Ward, Frank A., and Joe Kerkvliet. "Quantifying Exhaustible Resource Theory: An Application to Mineral Taxation Policy." *Resource and Energy Economics*, v.15, June 1993, pp. 203-242.

Natural Resources and Environment

EXPENSING OF EXPLORATION AND DEVELOPMENT COSTS: NONFUEL MINERALS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	0.1	0.1
2012	(1)	0.1	0.1
2013	(¹)	0.1	0.1
2014	(¹)	0.1	0.1
2015	(¹)	0.1	0.1

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 263, 291, 616-617, 56, 1254.

Description

Firms engaged in mining are permitted to expense (to deduct in the year paid or incurred) rather than capitalize (i.e., recover such costs through depletion or depreciation) certain exploration and development (E&D) costs. This provision is an exception to general tax rules.

In general, mining exploration costs are those (non-equipment) costs incurred to ascertain the existence, location, extent, or quality of any potentially commercial deposit of ore or other depletable mineral prior to the development stage of the mine or deposit.

Development costs generally are those incurred for the development of a mine or other natural deposits after the existence of ores in commercially marketable quantities has been determined. Development expenditures generally include those for construction of shafts and tunnels, and in some cases drilling and testing to obtain additional information for planning operations. There are no limits on the current deductibility of such costs. Expensing of mine E&D costs may be taken in addition to percentage depletion, but it subsequently reduces percentage depletion deductions (i.e., is recaptured). The costs of tangible equipment must be depreciated.

Expensing of E&D costs applies only to domestic properties; E&D costs on foreign properties must be depreciated. The excess of expensing over the capitalized value (amortized over 10 years) is a tax preference item that is subject to the alternative minimum tax.

Impact

E&D costs for non-fuel minerals are not as large a portion of the costs of finding and developing a mineral reserve as is the case for oil and gas, where they typically account for over two-thirds of the costs of creating a mineral asset. Expensing of such costs is also less of a benefit than percentage depletion allowances. The Joint Committee on Taxation estimates total tax expenditures from expensing E&D costs for non fuel minerals at \$300 million over the period 2011-2015.

Nevertheless they are a capital expense which otherwise would be depleted over the income-producing life of the mineral reserve. Combined with other tax subsidies, such as percentage depletion, expensing reduces effective tax rates in the mineral industry below tax rates on other industries, thereby providing incentives to increase investment, exploration, and output. This cost reduction increases the supply of the mineral and reduces its price.

This tax expenditure is largely claimed by corporate producers. The atrisk, recapture, and minimum tax restrictions that have since been placed on the use of the provision have primarily limited the ability of high-income taxpayers to shelter their income from taxation through investment in mineral exploration.

Rationale

Expensing of mine development expenditures was enacted in 1951 to encourage mining and reduce ambiguity in its tax treatment. The provision for mine exploration was added in 1966.

Prior to the Tax Reform Act of 1969, a taxpayer could elect either to deduct without dollar limitation exploration expenditures in the United States (which subsequently reduced percentage depletion benefits), or to deduct up to \$100,000 a year with a total not to exceed \$400,000 of foreign and domestic exploration expenditures without recapture.

The 1969 act subjected all post-1969 exploration expenditures to recapture. The Tax Equity and Fiscal Responsibility Act of 1982 added mineral exploration and development costs as tax preference items subject to the alternative minimum tax, and limited expensing for corporations to 85 percent. The Tax Reform Act of 1986 required that all exploration and development expenditures on foreign properties be capitalized.

Assessment

E&D costs are generally recognized to be capital costs, which, according to standard economic principles, should be recovered through depletion (cost depletion adjusted for inflation).

Lease bonuses and other exploratory costs (survey costs, geological and geophysical costs) are properly treated as capital costs, although they may be recovered through percentage rather than cost depletion. Immediate expensing of E&D costs provides a tax subsidy for capital invested in the mineral industry with a relatively large subsidy for corporate producers.

By expensing rather than capitalizing these costs, the tax code effectively sets taxes on the return to such expenditures at zero. As a capital subsidy, however, expensing is inefficient because it makes investment decisions based on tax considerations rather than inherent economic considerations.

Arguments have been made over the years to justify expensing on the basis of unusual investment risks, the distortions in the corporate income tax, strategic materials and national security, and protection of domestic producers (especially small independents).

Expensing is a costly and inefficient way to increase mineral output and enhance energy security. Expensing may also have adverse environmental consequences by encouraging the development of raw materials as opposed to recycled substitutes.

Selected Bibliography

Andrews-Speed, Philip, and Christopher Rogers. "Mining Taxation Issues for the Future," *Resources Policy*, v. 25, 1999, pp. 221-227.

Congressional Budget Office. Budget Options. Section 28: Repeal the Expensing of Exploration and Development Costs for Extractive Industries. February 2005.

Conrad, Robert F. "Mining Taxation: A Numerical Introduction." *National Tax Journal*, v. 33, December 1980, pp. 443-449.

Crowson, Philip. Inside Mining: The Economics of the Supply and Demand of Minerals and Metals. London: Mining Journal Books, 1998.

Dorsey, Christine. "Clinton Administration Revives Plan to Revoke Mining Tax Break." Las Vegas Review — Journal. February 10, 2000. p. 4D.

Lagos, Gustavo. "Mining Investment and Compensation — Mineral Taxation and Investment." *Natural Resources Forum*, v.17, August 1993.

Lazzari, Salvatore. The Federal Royalty and Tax Treatment of the Hard Rock Minerals Industry: An Economic Analysis. Library of Congress, Congressional Research Service. CRS Report RL34268. Washington, DC: June 13, 2008.

Muzondo, Timothy R. "Mineral Taxation, Market Failure, and the Environment." *International Monetary Fund. Staff Papers*. International Monetary Fund, v.40, March 1993. Washington DC., pp. 152-178.

- U.S. General Accounting Office. Selected Tax Provisions Affecting the Hard Minerals Mining and Timber Industry. GAO/GGD-87-77 FS, Washington, D.C., Government Printing Office, June 1987.
- U.S. General Accounting Office. Selected Tax Provisions Affecting the Hard Minerals Mining and Timber Industry. GAO/GGD-87-77 FS.. Washington, DC: U.S. Government Printing Office, June 1987.

Ward, Frank A., and Joe Kerkvliet. "Quantifying Exhaustible Resource Theory: An Application to Mineral Taxation Policy." *Resource and Energy Economics*. v.15, June 1993. pp. 203-242.

Wilburn, D.R. "Exploration." *Mining Engineering*, v.55, May 2003. pp. 30-43.

Natural Resources and Environment

TREATMENT OF INCOME FROM EXPLORATION AND MINING OF NATURAL RESOURCES AS QUALIFYING INCOME UNDER THE PUBLICLY TRADED PARTNERSHIP RULES

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1		0.1
2012	0.1	-	0.1
2013	0.1	-	0.1
2014	0.1	-	0.1
2015	0.1	-	0.1

Authorization

Section 7704.

Description

Code Sec. 7704, with a noteworthy exception, generally treats a publicly traded partnership (PTP) as a corporation for federal income tax purposes. For this purpose, a PTP is any partnership that is traded on an established securities market or secondary market.

A notable exception to Sec. 7704 occurs if 90 percent of the gross income of a PTP is passive-type income, such as interest, dividends, real property rents, gains from the disposition of real property, and similar income or gains. In these cases, the PTP is exempt from corporate level taxation, thus allowing it to claim pass-through status for tax purposes.

Qualifying income includes interest, dividends, real property rents, gain from the disposition of real property, income and gains from certain natural resource activities, gain from the disposition of a capital asset (e.g., selling

stock), or certain property held for the production of income, as well as certain income and gains from commodities. In addition, income derived from the exploration, development, mining or production, processing, refining, transportation, or the marketing of any mineral or natural resource are treated as qualifying income for publicly traded partnerships. Qualifying income does not include income derived from the production of power, or trading and investment activity.

Impact

In general, the publicly traded partnerships rules favor the owners of publicly traded partnerships whose main source of qualifying income is derived from the exploration, development, mining or production, processing, refining, transportation, or the marketing of any mineral or natural resource. In contrast to an otherwise similar corporation, the owners of such a publicly traded partnership are not subject to a corporate level tax. In addition, the owners of PTPs benefit from deferral of income distributed by the PTP.

Rationale

The rules generally treating publicly traded partnerships as corporations were enacted by the Revenue Act of 1987 (P.L. 100-203) to address concern about erosion of the corporate tax base through the use of partnerships. Congress's concern was that growth in PTPs signified that activities that would otherwise be conducted by corporations, and subject to both corporate and shareholder level taxation, were being done by PTPs for purely tax reasons—eroding the corporate tax base.

The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) clarified the definition of qualified income to include income from the transport of oil and gas and from depletable natural resources. Income from the marketing of oil and gas to retail customers was excluded from qualified income. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expanded the definition of qualified income to include income or gains derived from the exploration, development, mining or production, processing, refining, transportation (including pipelines transporting gas, oil, or products thereof), or the marketing of any mineral or natural resource.

Assessment

The fundamental issue, from a matter of tax policy, is whether some PTPs should be exempt from corporate level taxation, based upon the nature and type of their income. In general, Congress has enacted rules that limit the ability of untaxed entities to publicly trade their interests and/or restrict the entities activities. Thus, the exemption of some PTPs from corporate level taxes may be seen as a departure from general Congressional intent concerning passthrough entities. Others would argue that the types of qualifying income listed in statute are sufficient justification for the passthrough treatment.

Selected Bibliography

Fields, Deborah, Holly Belanger, Robert Swiech, and Eric Lee, "Triangles in a World of Squares: A Primer on Significant U.S. Federal Income Tax Issues for Natural Resources Publicly Traded Partnerships," *Taxes—The Tax Magazine*, Commerce Clearing House, December 2009, pp. 21-34.

"Fracking Income Is Qualifying Income For Publicly Traded Partnership," *Federal Tax Weekly*, CCH publication, Issue Number 29, July 19, 2012, pp. 333, 335.

Gentry, William M., "Taxes, Financial Decisions and Organizational Form: Evidence from Publicly Traded Partnerships," *Journal of Public Economics*, vol. 53, no. 2, (1994), pp.223-244.

Marples, Donald J. Taxation of Private Equity and Hedge Fund Partnerships: Characterization of Carried Interest. Library of Congress, Congressional Research Service Report RS22717. Washington, DC: March 10, 2011.

Martin, John D., and John W. Kensinger, "Valuation Effects of Rollout Publicly Traded Partnerships in the Oil and Gas Industry," *Managerial and Decision Economics*, vol. 11, no. 3, (1990), pp. 143-153.

National Association of Publicly Traded Partnerships, "Facts & Answers about Publicly Traded Partnerships," 2010, 4 p.

Schisler, Dan L. and James M. Lukawitz. "The Impact of the Omnibus Budget Reconciliation Act of 1987 on Shareholders of Publicly Traded Partnerships," *Advances in Taxation*, vol. 7, (1995), pp.141-159.

- U.S. Congress, House Committee on the Budget, *Omnibus Budget Reconciliation Act of 1987*, 100th Congress, 1st Session., October 26, 1987 (Washington, GPO, 1987).
- U.S. Congress, Joint Committee on Taxation, Present Law and Analysis Relating to Tax Treatment of Partnership Carried Interest and Related Issues, Part I, JCX-62-07, 110th Congress, 1st Session. (Washington, GPO, 1987).

Natural Resources and Environment

SPECIAL RULES FOR MINING RECLAMATION RESERVES

Estimated Revenue Loss [In billions of dollars]

	-		
Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(1)
2012	(¹)	(¹)	(¹)
2013	$\binom{1}{2}$	(¹)	(¹)
2014	$\binom{1}{2}$	(¹)	(¹)
2015	(¹)	(1)	(1)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 468.

Description

Firms are generally not allowed to deduct a future expense until "economic performance" occurs—that is, until the service they pay for is performed and the expense is actually paid. Electing taxpayers may, however, deduct the current-value equivalent of certain estimated future reclamation and closing costs for mining and solid waste disposal sites.

For federal income tax purposes, the amounts deducted prior to economic performance are deemed to earn interest at a specified interest rate. When the reclamation has been completed, any excess of the amounts deducted plus deemed accrued interest over the actual reclamation or closing costs is taxed as ordinary income.

Impact

Section 468 permits reclamation and closing costs to be deducted at the time of the mining or waste disposal activity that gives rise to the costs. Absent this provision, the costs would not be deductible until the reclamation

or closing actually occurs and the costs are paid. Any excess amount deducted in advance (plus deemed accrued interest) is taxed at the time of reclamation or closing.

Rationale

This provision was introduced by the Deficit Reduction Act of 1984 (P.L. 98-369). Proponents argued that allowing current deduction of mine reclamation and similar expenses is necessary to encourage reclamation, and to prevent the adverse economic effect on mining companies that might result from applying the general tax rules regarding deduction of future costs. Congress may choose to extend this provision, but has yet to do so as of the publication date of this report.

Assessment

Reclamation and closing costs for mines and waste disposal sites that are not incurred concurrently with production from the facilities are capital expenditures. Unlike ordinary capital expenditures, however, these outlays are made at the end of an investment project rather than at the beginning.

Despite this difference, writing off these capital costs over the project life is appropriate from an economic perspective, paralleling depreciation of up-front capital costs. The tax code does not provide systematic recognition of such end-of-project capital costs. Hence they are treated under special provisions that provide exceptions to the normal rule of denying deduction until economic performance. Because the provisions align taxable income and economic incomes closer together, it is debatable whether the exceptions should be regarded as tax expenditures at all.

Selected Bibliography

Halperin, Daniel I. "Interest in Disguise: Taxing the 'Time Value of Money," *The Yale Law Journal*, Vol. 95 (January 1986), pp. 506-552.

Kiefer, Donald W. "The Tax Treatment of a 'Reverse Investment," *Tax Notes*, March 4, 1985, pp. 925-932.

U.S. Congress, Joint Committee on Taxation. General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, Committee Print, 98th Congress, 2nd session, December 31, 1984, pp. 273-276.

Wise, Spence and J. Ralph Byington. "Mining and Solid Waste Reclamation and Closing Costs," Oil, Gas & Energy Quarterly, Vol. 50 (September 2001), pp. 47-55.

Yancey, Thomas H. "Emerging Doctrines in the Tax Treatment of Environmental Cleanup Costs," *Taxes*, December 1, 1992.

Agriculture

EXCLUSION OF COST-SHARING PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(¹)
2012	$\binom{1}{2}$	(¹)	(¹)
2013	(¹)	(¹)	(¹)
2014	(¹)	$\binom{1}{2}$	$\binom{1}{2}$
2015	$\binom{1}{}$	$(^{1})$	(1)

(1) Positive tax expenditure of less than \$50 million.

Authorization

Section 126.

Description

There are a number of programs under which both the federal and state governments make payments to taxpayers which represent a share of the cost of certain improvements made to the land. These programs generally relate to improvements which further conservation, protect the environment, improve forests, or provide habitats for wildlife. Under Section 126, the grants received under certain of these programs are excluded from the recipient's gross income.

To qualify for the exclusion, the payment must be made primarily for the purpose of conserving soil and water resources or protecting the environment, and the payment must not produce a substantial increase in the annual income from the property with respect to which the payment was made.

Impact

The exclusion of these grants and payments from tax provides a general incentive for various conservation and land improvement projects that might not otherwise be undertaken.

Rationale

The income tax exclusion for certain cost-sharing payments was part of the tax changes made under the Revenue Act of 1978. The rationale for this change was that in the absence of an exclusion many of these conservation projects would not be undertaken. In addition, since the grants are to be spent by the taxpayer on conservation projects, the taxpayer would not necessarily have the additional funds needed to pay the tax on the grants if they were not excluded from taxable income.

Assessment

The partial exclusion of certain cost-sharing payments is based on the premise that the improvements financed by these grants benefit both the general public and the individual landowner. The portion of the value of the improvement financed by grant payments attributable to public benefit should be excluded from the recipient's gross income while that portion of the value primarily benefitting the landowner (private benefit) is properly taxable to the recipient of the payment.

The problem with this tax treatment is that there is no way to identify the true value of the public benefit. In those cases where the exclusion of cost-sharing payment is insufficient to cover the value of the public benefit, the project probably would not be undertaken.

On the other hand, on those projects that are undertaken, the exclusion of the cost-sharing payment probably exceeds the value of the public benefit and hence, the excess provides a subsidy primarily benefitting the landowner.

Selected Bibliography

- U.S. Congress, Joint Committee on Taxation, General Explanation of the Revenue Act of 1978, joint committee print, 96th Cong., 1st sess., March 12, 1979, JCS-7-79 (Washington, DC: GPO, 1979), pp. 314-315.
- , Joint Committee on Taxation, Present Law and Description of Proposals Relating to Federal Income Tax Provisions That Impact Energy,

Fuel, and Land Use Conservation and Preservation, July 24, 2000, JCX-84-00.

- , Joint Committee on Taxation, Study of the Overall State of the Federal Tax System and Recommendations for Simplification, Pursuant to Section 8022(3)(B) of the Internal Revenue Code of 1986, Volume II, joint committee print, 107th Cong., 1st sess., April 2001, JCS-3-01 (Washington, DC: GPO, 1999), pp. 460-462.
- , Senate Committee on Finance, *Technical Corrections Act of 1979*, report to accompany H.R. 2797, 96th Cong., 1st sess., S.Rept. 96-498, (Washington, DC: GPO, 1979), pp. 79-81.
- U.S. Department of the Treasury, Internal Revenue Service, Farmer's Tax Guide, Publication 225, 2011, pp. 11-12.

Agriculture

EXCLUSION OF CANCELLATION OF INDEBTEDNESS INCOME OF FARMERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	-	0.1
2012	0.1	-	0.1
2013	0.1	-	0.1
2014	0.1	-	0.1
2015	0.1	-	0.1

Authorization

Sections 108 and 1017(b)(4).

Description

This provision allows farmers who are solvent to treat the income arising from the cancellation of certain indebtedness as if they were insolvent taxpayers. Under this provision, income that would normally be subject to tax, the cancellation of a debt, would be excluded from tax if the discharged debt was "qualified farm debt" discharged or canceled by a "qualified person."

To qualify, farm debt must meet two tests: it must be incurred directly from the operation of a farming business, and at least 50 percent of the taxpayer's previous three years of gross receipts must come from farming.

To qualify, those canceling the qualified farm debt must participate regularly in the business of lending money, cannot be related to the taxpayer who is excluding the debt, cannot be a person from whom the taxpayer acquired property securing the debt, or cannot be a person who received any fees or commissions associated with acquiring the property securing the debt. Qualified persons include federal, state, and local governments.

The amount of canceled debt that can be excluded from tax cannot exceed the sum of adjusted tax attributes and adjusted basis of qualified property. Any canceled debt that exceeds this amount must be included in gross income. Tax attributes include net operating losses, general business credit carryovers, capital losses, minimum tax credits, passive activity loss and credit carryovers, and foreign tax credit carryovers. Qualified property includes business (depreciable) property and investment (including farmland) property.

Taxpayers can elect to reduce the basis of their property before reducing any other tax benefits.

Impact

This exclusion allows solvent farmers to defer the tax on the income resulting from the cancellation of a debt.

Rationale

The exclusion for the cancellation of qualified farm indebtedness was enacted as part of the Tax Reform Act of 1986. At the time, the intended purpose of the provision was to avoid tax problems that might arise from other legislative initiatives designed to alleviate the credit crisis in the farm sector.

For instance, Congress was concerned that pending legislation providing federal guarantees for lenders participating in farm-loan write-downs would cause some farmers to recognize large amounts of income when farm loans were canceled. As a result, these farmers might be forced to sell their farmland to pay the taxes on the canceled debt. This tax provision was adopted to mitigate that problem.

Assessment

The exclusion of cancellation of qualified farm income indebtedness does not constitute a forgiveness of tax but rather a deferral of tax. By electing to offset the canceled debt through reductions in the basis of property, a taxpayer can postpone the tax that would have been owed on the canceled debt until the basis reductions are recaptured when the property is

sold or through reduced depreciation in the future. Since money has a time value (a dollar today is more valuable than a dollar in the future), however, the deferral of tax provides a benefit in that it effectively lowers the tax rate on the income realized from the discharge of indebtedness.

Selected Bibliography

- U.S. Congress, House Committee on the Budget, *Omnibus Budget Reconciliation Act of 1993*, report to accompany H.R. 2264, 103rd Cong., 1st sess., H.Rept. 103-213 (Washington, DC: GPO, 1993), p. 554.
- , Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1986, joint committee print, 100th Cong., 1st sess., May 4, 1987, JCS-10-87 . (Washington, DC: GPO, 1987), pp. 193-194.
- U.S. Department of the Treasury, Internal Revenue Service, *Canceled Debts, Foreclosures, Repossessions, and Abandonments*, Publication 4681, January 24, 2012 (see "Qualified Farm Indebtedness, p. 5-7).
- , Internal Revenue Service, *Farmer's Tax Guide*, Publication 225, 2011.
- , Internal Revenue Service, Farmers Audit Techniques Guide (ATG), May 2011 (see Chapter 9, "Grain," and Subchapter "Cancellation of Indebtedness," http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Farmers-ATG).
- , Internal Revenue Service, "Reduction of Tax Attributes Due to Discharge of Indebtedness," 69 Federal Register 26038, May 11, 2004.

Agriculture

CASH ACCOUNTING FOR AGRICULTURE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(¹)
2012	(1)	(1)	(1)
2013	(1)	(1)	(¹)
2014	$\binom{1}{2}$	(1)	$\binom{1}{\cdot}$
2015	$\binom{1}{}$	$\binom{1}{2}$	(1)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Note: Disaggregated estimates available from the Joint Committee on Taxation.

Authorization

Sections 162, 175, 180, 446, 447, 448, 461, 464, and 465.

Description

Most farm businesses (with the exception of certain farm corporations and partnerships or any tax shelter operation) may use the cash method of tax accounting to deduct costs attributable to goods held for sale and in inventory at the end of the tax year. These businesses are also allowed to expense some costs of developing assets that will produce income in future years. Both of these rules thus allow deductions to be claimed before the income associated with the deductions is realized.

Costs that may be deducted before income attributable to them is realized include livestock feed and the expenses of planting crops for succeeding year's harvest. Costs that otherwise would be considered capital expenditures but that may be deducted immediately by farmers include certain soil and water conservation expenses, costs associated with raising dairy and breeding cattle, and fertilizer and soil conditioner costs.

Impact

For income tax purposes, the cash method of accounting is less burdensome than the accrual method of accounting and also provides benefits in that it allows taxes to be deferred into the future. Farmers who use the cash method of accounting and the special expensing provisions receive tax benefits not available to taxpayers required to use the accrual method of accounting.

Rationale

The Revenue Act of 1916 established that a taxpayer may compute personal income for tax purposes using the same accounting methods used to compute income for business purposes. At the time, because accounting methods were less sophisticated and the typical farming operation was small, the regulations were apparently adopted to simplify record keeping for farmers.

Specific regulations relating to soil and water conservation expenditures were adopted in the Internal Revenue Code of 1954. Provisions governing the treatment of fertilizer costs were added in 1960.

The Tax Reform Act of 1976 required that certain farm corporations and some tax shelter operations use the accrual method of accounting rather than cash accounting. The Tax Reform Act of 1986 further limited the use of cash accounting by farm corporations and tax shelters and repealed the expensing rules for certain land clearing operations. The Act also limited the use of cash accounting for assets that had preproductive periods longer than two years. These restrictions, however, were later repealed by the Technical and Miscellaneous Revenue Act of 1988.

Assessment

The effect of deducting costs before the associated income is realized understates income in the year of deduction and overstates income in the year of realization. The net result is that tax liability is deferred which results in an underassessment of tax. In addition, in certain instances when the income is finally taxed, it may be taxed at preferential capital gains rates.

Selected Bibliography

- U.S. Congress, Joint Committee on Taxation, General Explanation of Tax Legislation Enacted in the 107th Congress, joint committee print, 108th Cong., 1st sess., January 24, 2003, JCS-1-03, (Washington, DC: GPO, 2003). pp. 240-242.
- —, Joint Committee on Taxation, General Explanation of the Revenue Act of 1978, joint committee print, 96th Cong., 1st sess., March 12, 1979, JCS-7-79 (Washington, DC: GPO, 1979).
- , Joint Committee on Taxation, Overview of Present Law and Selected Proposals Regarding the Federal Income Taxation of Small Business and Agriculture, May 31, 2002, JCX-45-02, pp. 37-39.
- , Senate, Committee on Finance, *Technical Corrections Act of 1979*, report on H.R. 2797, 96th Cong., 1st sess., S.Rept. 96-498, (Washington, DC: GPO, 1979), pp. 79-81.
- U.S. Congressional Budget Office, *Budget Options*, February 2001, p. 439.
- U.S. Department of the Treasury, Internal Revenue Service, *Accounting Periods and Methods*. Publication 538. 2008.
- , Internal Revenue Service, *Farmer's Tax Guide*, Publication 225, 2011, p. 5.
- —, Internal Revenue Service, Farmers Audit Techniques Guide (ATG), May 2011 (see Chapter 2, "Income," and Subchapter "Methods of Accounting for Farming Cash/Accrual/Hybrid", at http://www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Farmers-ATG).

Agriculture

INCOME AVERAGING FOR FARMERS AND FISHERMEN

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	-	(¹)
2012	(¹)	-	(¹)
2013	$\binom{1}{2}$	-	(¹)
2014	$\binom{1}{2}$	-	$\binom{1}{2}$
2015	(1)	-	(¹)

(1) Positive tax expenditure of less than \$50 million.

Authorization

Section 1301.

Description

For taxable years beginning after December 31, 1997, taxpayers have the option to calculate their current year income tax by averaging over the prior 3-year period, all or a portion of their income from farming or commercial fishing. The taxpayer can designate all or a part of his current year income from farming as "elected farm income" or from fishing as "fishing business" income. The taxpayer then allocates 1/3 of the "elected farm income" or "fishing business" income to each of the prior 3 taxable years.

The current year income tax for a taxpayer making this election is calculated by taking the sum of his current year tax calculated without including the "elected farm income" or "elected fishing business" income and the extra tax in each of the three previous years that results from including 1/3 of the current year's "elected farm income" or "fishing business" income. "Elected farm income" can include the gain on the sale of farm assets with the exception of the gain on the sale of land.

The tax computed using income averaging for farmers and fisherman does not apply for purposes of computing the regular income tax and subsequent determination of alternative minimum tax liability.

In addition, taxpayers who receive settlement or judgment-related income (after October 3, 2008) from the litigation surrounding the 1989 Exxon Valdez oil spill may use three-year income averaging for reporting such amounts or contribute such amounts to eligible retirement plans without having the income treated as taxable.

Impact

This provision provides tax relief primarily to taxpayers whose main source of income derives from agricultural production or commercial fishing. It allows these taxpayers to exert some control over their taxable incomes and hence, their tax liabilities in those years that they experience fluctuations in their incomes.

Rationale

Income averaging for farmers was enacted as part of the Taxpayer Relief Act of 1997. Congress saw that the income from farming can fluctuate dramatically from year to year and that these fluctuations are outside the control of the taxpayers. To address this problem, Congress voted that taxpayers who derive their income from agriculture should be allowed an election to average farm income and mitigate the adverse tax consequences of fluctuating incomes under a progressive tax structure.

Section 504 of the Economic Stabilization Act of 2008 (P.L. 110-343) was enacted to allow qualified taxpayers who receive settlement or judgment-related income from the litigation surrounding the 1989 Exxon Valdez oil spill to use three-year income averaging for reporting such amounts or contribute such amounts to eligible retirement plans without having the income treated as taxable. This special treatment for such settlement or judgment-related income went into effect on October 3, 2008.

Assessment

Under an income tax system with progressive tax rates and an annual assessment of tax, the total tax assessment on an income that fluctuates from year to year will be greater than the tax levied on an equal amount of income that is received in equal annual installments. Under pre-1986 income tax law, income averaging provisions were designed to help avoid the over-

assessment of tax that might occur under a progressive tax when a taxpayer's income fluctuated from year to year. These pre-1986 tax provisions were especially popular with farmers who, due to market or weather conditions, might experience significant fluctuations in their annual incomes.

The Tax Reform Act of 1986 repealed income averaging. At the time, it was argued that the reduction in the number of tax brackets and the level of marginal tax rates reduced the need for income averaging. Farmers argued that even though the tax brackets had been widened and tax rates reduced, the fluctuations in their incomes could be so dramatic that without averaging they would be subject to an inappropriately high level of income taxation.

As marginal income tax rates were increased in 1990 and 1993, Congress became more receptive to the arguments for income averaging and reinstated limited averaging in the Taxpayer Relief Act of 1997. Under this Act, income averaging for farmers was a temporary provision and was to expire after January 1, 2001. The Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1998 made income averaging for farmers permanent.

The American Jobs Creation Act of 2004 expanded income averaging to include commercial fisherman. It also coordinated income averaging with the individual alternative minimum tax so that the use of income averaging would not cause farmers or fishermen to incur alternative minimum tax liability.

It appears, however, that the current income averaging provisions fall short of the economic ideal on several fronts. For instance, from an economic perspective the source of income fluctuations should not matter when deciding whether or not income averaging is needed. Hence, limiting averaging to farm income or commercial fishing income may appear unfair to other taxpayers such as artists and writers who also may have significant fluctuations in their annual incomes.

A more significant theoretical problem is that these provisions only allow for upward income averaging. Under a theoretically correct income tax, income averaging would be available for downward fluctuations in income as well as upward fluctuations. Downward income averaging would mean that taxpayers who experienced major reductions in their annual incomes would also qualify for income averaging. This would allow them to mitigate sharp reductions in their current year incomes by reducing their

current year taxes to reflect taxes that had already been prepaid in previous years when their incomes were higher.

Selected Bibliography

- U.S. Congress, House of Representatives, *American Jobs Creation Act of 2004*, conference report to accompany H.R. 4520, 108th Cong., 2nd sess., H.Rept. 108-755, (Washington, DC: GPO, 2004), pp. 298-299.
- , Joint Committee on Taxation, General Explanation of Tax Legislation Enacted in the 110th Congress, joint committee print, 111th Cong., 1st sess., March 2009, JCS-1-09, (Washington, DC: GPO, 2009), pp. 449-452.
- , Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1986, joint committee print, 100th Cong. 1st sess., May 4, 1987, JCS-10-87, (Washington, DC: GPO, 1987), pp. 14-27.
- , Joint Committee on Taxation, Overview of Present Law and Selected Proposals Regarding the Federal Income Taxation of Small Business and Agriculture, May 31, 2002, JCX-45-02, pp. 44-45.
- , Joint Committee on Taxation. *Technical Explanation of S. 3152,* "Community Renewal and New Markets Act of 2000," October 3, 2000, JCX-105-00, p. 54.
- U.S. Department of Agriculture, *Federal Tax Policies and Farm Households*. May 2009 (see section "Income Averaging Provides Reduced Tax Rates for Farmers with Variable Income").
- U.S. Department of the Treasury, Internal Revenue Service, "Averaging of Farm Income" (T.D. 8972), 67 Federal Register 817, January 8, 2002.
- , Internal Revenue Service, "Farmer and Fisherman Income Averaging" (T.D. 9509), 75 Federal Register 78157, December 15, 2010.
- , Internal Revenue Service, *Farmer's Tax Guide*, Publication 225, 2011, p. 18.
- , Treasury Inspector General for Tax Administration, Many Taxpayers That Could Benefit From the Income Averaging Provision for Fishermen Are Not Using It, Reference Number: 2006-30-15, September 22, 2006.

Agriculture

FIVE-YEAR CARRY-BACK PERIOD FOR NET OPERATING LOSSES ATTRIBUTABLE TO FARMING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	0.1	0.2
2012	0.1	0.1	0.2
2013	0.1	0.1	0.2
2014	0.1	0.1	0.2
2015	0.1	0.1	0.2

Authorization

Section 172.

Description

A net operating loss, the amount by which business and certain other expenses exceed income for the year, may be carried forward and deducted from other income for 20 years following the loss year. It may, at the taxpayer's election, instead be carried back to earlier years in which there was positive income. For most taxpayers, the carryback period is limited to the previous two years, although small businesses in federally declared disaster areas may carry losses back three years. (Losses arising in 2008 or 2009 were generally allowed a five year carryback period under The Worker, Homeownership, and Business Assistance Act of 2009). Current law permits losses attributed to a farming business (as defined in section 263A(e)(4)) to be carried back five years. The Gulf Opportunity Zone Act of 2005 broadened the definition of farm income to include losses on qualified timber property located in the Gulf or Rita Opportunity Zones.

Impact

For businesses that have paid taxes within the allowed carryback period, making use of the carryback rather than the carryforward option for operating losses means receiving an immediate refund rather than waiting for a future tax reduction. Although the special five year carryback applies only to losses incurred in a farming business, the losses may be used to offset taxes paid on any type of income. Thus the beneficiaries of this provision are farmers who have either been profitable in the past or who have had non-farm income on which they paid taxes.

Rationale

Some provision for deducting net operation losses from income in other years has been an integral part of the income tax system from its inception. The current general rules (20-year carryforwards and two year carrybacks) date from the "Taxpayer Relief Act of 1997," P.L. 105-34, which shortened the carryback period from three to two years (except for farmers and small businessmen in federally declared disaster areas, which remained at three years).

The five year carryback for farm losses was enacted as a part of the "Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1999," P.L. 105-277. The committee reports state that a special provision for farmers was considered appropriate because of the exceptional volatility of farm income.

The Gulf Opportunity Zone Act of 2005 broadened the definition of farm income to include losses on qualified timber property located in the Gulf or Rita Opportunity Zones. This change is effective for losses incurred on or after August 28, 2005 (in the Gulf Opportunity Zone), on or after September 23, 2005 (in the Rita Zone), on or after October 23, 2005 (in the Wilma Zone) and before January 1, 2007.

Assessment

In an ideal income tax system, the government would refund taxes in loss years with the same alacrity that it collects them in profit years, and a carryback of losses would not be considered a deviation from the normal tax structure. Since the current system is less than ideal in many ways, however, it is difficult to say whether the loss carryover rules bring it closer to or move it further away from the ideal.

The special rule for farmers is intended to compensate for the excessive fluctuations in income farmers are said to experience. This justification is offered for many of the tax benefits farmers are allowed, but it is not actually based on evidence that farmers experience annual income fluctuations greater than other small businessmen. The farm losses may offset taxes on non-farm income, so some of the benefit will accrue to persons whose income is not primarily from farming.

Selected Bibliography

- U.S. Congress, Joint Committee on Taxation, *General Explanation of Tax Legislation Enacted in 1998*, joint committee print, 105th Cong., 2nd sess., November 24, 1998, JCS-6-98, (Washington, DC: GPO, 1998), pp. 276-277.
- —, Joint Committee on Taxation, Summary of P.L. 107-147, The "Job Creation and Worker Assistance Act of 2002". JCX-22-02, March 22, 2002. p. 2.
- —, Joint Committee on Taxation. Technical Explanation of the Revenue Provisions of H.R. 4440, "The Gulf Opportunity Zone Act of 2005" As Passed By The House of Representatives and the Senate, JCX-88-05, December 16, 2005, p. 22.
- —, House Committee on Ways and Means, *Taxpayer Relief Act of 1998*, report to accompany H.R. 4579, 105th Cong., 2nd sess., H.Rept. 105-739, (Washington, DC: GPO, 1998), pp. 57-59.
- U.S. Department of the Treasury, Internal Revenue Service, *Net Operating Losses (NOLs) for Individuals, Estates, and Trusts.* Publication 536, 2011.

Commerce and Housing:

Financial Institutions

EXEMPTION OF CREDIT UNION INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	+	0.4	0.4
2012	-	0.5	0.5
2013	-	0.5	0.5
2014	-	0.7	0.7
2015	-	0.7	0.7

Authorization

Section 501(c)(14) of the Internal Revenue Code of 1986 and section 122 of the Federal Credit Union Act, as amended (12 U.S.C. sec. 1768).

Description

Credit unions without capital stock, organized and operated for mutual purposes, and without profit are not subject to federal income tax.

Impact

Credit unions are the only depository institutions exempt from federal income taxes. If this exemption were repealed, both federally chartered and state chartered credit unions would become liable for payment of federal corporate income taxes on their retained earnings but not on earnings distributed to depositors.

For a given addition to retained earnings, this tax exemption permits credit unions to pay members higher dividends and charge members lower interest rates on loans. Over the past 25 years, this tax exemption may have

contributed to the more rapid growth of credit unions compared to other depository institutions.

Opponents of credit union taxation emphasize that credit unions provide many services free or below cost in order to assist low-income members. These services include small loans, financial counseling, and low-balance share drafts. They argue that the taxation of credit unions would create pressure to eliminate these subsidized services. But whether or not consumer access to basic depository services is a significant problem is disputed.

Rationale

Credit unions have never been subject to the federal income tax. Initially, the Attorney General of the United States ruled that credit unions were exempt from income tax because of their similarity to domestic building and loan associations — whose business was at one time confined to lending to members — and cooperative banks operated for mutual purposes, which were specifically exempt by Revenue Acts. The income tax exemption for mutual banks and savings and loan institutions was removed in the Revenue Act of 1951, but the Act, for the first time, designed credit unions by name as being exempt from federal income tax. No specific reason was given for continuing the exemption of credit unions.

In 1978, the Carter Administration proposed that the taxation of credit unions be phased in over a five-year period. In 1984, a report of the Department of the Treasury to the President proposed that the tax exemption of credit unions be repealed. In 1985, the Reagan Administration proposed the taxation of credit unions with over \$5 million in gross assets. In the budget for fiscal year 1993, the George H.W. Bush Administration proposed that the tax exemption for credit unions with assets in excess of \$50 million be repealed. On March 16, 2004, Donald E. Powell, Chairman of the Federal Deposit Insurance Corporation, stated that "credit unions ought to pay taxes." On November 3, 2005, the House Ways and Means Committee held a hearing on "Review of Credit Union Tax Exemption." In the first session of the 110th Congress, the U.S. Treasury published two major studies concerning corporate tax reform: "Business Taxation and the Global Competitiveness," and "Approaches to Improve the Competitiveness of the U.S. Business Tax System for the 21st Century." Both of these studies recommended broadening the corporate tax base by repealing various business tax breaks including the tax exempt status of credit unions. Officials of the credit union industry argued that these Treasury reports were in conflict with a 2004 letter from President George W. Bush stating his support

for the credit union tax exemption. On August 27, 2010, the President's Economic Recovery Advisory Board (PERAB) released The Report on Tax Reform Options: Simplification, Compliance, and Corporate Taxation. The preface of this report states that "it is important to emphasize at the outset that the PERAB is an outside advisory panel and is not part of the Obama Administration." For corporate tax reform, PERAB presented the option of broadening and reducing marginal corporate income tax rates. PERAB indicated that one option to broaden the corporate tax base would be to eliminate or reduce tax expenditures including the exemption of credit union income from tax. In the 111th and 112th Congresses, comprehensive fiscal reform proposals were introduced. Most of these proposals would broaden the tax base and lower tax rates, which may result in the elimination of the tax exemption for credit unions. For example, in December 2010, the National Commission on Fiscal Responsibility and Reform, often referred to as the Bowles-Simpson Commission, proposed that all special subsidies for different industries be eliminated.

Assessment

Supporters of the credit union exemption emphasize the uniqueness of credit unions compared to other depository institutions. Credit unions are nonprofit financial cooperatives organized by people with a common bond, which is a unifying characteristic among members that distinguishes them from the general public.

Credit unions are directed by volunteers for the purpose of serving their members. Consequently, the exemption's supporters maintain that credit unions are member-driven while other depository institutions are profit-driven. Furthermore, supporters argue that credit unions are subject to certain regulatory constraints not required of other depository institutions and that these constraints reduce the competitiveness of credit unions. For example, credit unions may only accept deposits of members and lend only to members, other credit unions, or credit union organizations.

Proponents of taxation argue that deregulation has caused extensive competition among all depository institutions, including credit unions, and the tax exemption gives credit unions an unwarranted advantage over other depository institutions. They argue that depository institutions should have a level playing field in order for market forces to allocate resources efficiently.

Selected Bibliography

Bickley, James M. *Should Credit Unions be Taxed?* Library of Congress, Congressional Research Service Report 97-548. Washington, DC: Updated September 8, 2010.

- U.S. Congress, Congressional Budget Office. *Budget Options*, Volume 2. Washington, DC: U.S. Government Printing Office, August 2009, p. 220.
- U.S. Government Accountability Office, *Issues Regarding the Tax-Exempt Status of Credit Unions*, Testimony before the House Committee on Ways and Means, November 3, 2005.
- . Greater Transparency Needed on Who Credit Unions Serve and on Senior Executive Compensation Arrangements, November 2006.

Tatom, John. Competitive Advantage: A Study of the Federal Tax Exemption for Credit Unions. Washington, DC: Tax Foundation, 2005.

Commerce and Housing: Insurance Companies

EXCLUSION OF INVESTMENT INCOME ON LIFE INSURANCE AND ANNUITY CONTRACTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	25.7	2.5	28.2
2012	26.3	2.6	28.9
2013	27.0	2.6	29.6
2014	27.7	2.7	30.4
2015	28.4	2.8	31.2

Authorization

Sections 72, 101, 7702, 7702A.

Description

Life insurance companies invest premiums they collect, and returns on those investments help pay benefits. Amounts not paid as benefits may be paid as policy dividends or given back to policyholders as cash surrender values or loan values.

Policyholders are not generally taxed on this investment income, commonly called "inside build-up," as it accumulates. Insurance companies also usually pay no taxes on this investment income. Death benefits for most policies are not taxed at all, and amounts paid as dividends or withdrawn as cash values are taxed only when they exceed total premiums paid for the policy, allowing tax-free investment income to pay part of the cost of the insurance protection. Investment income that accumulates within annuity policies is also free from tax, but annuities are taxed on their investment component when paid.

Life insurance policies must meet tests designed to limit the tax-free accumulation of income. If investment income accumulates faster than is needed to fund the promised benefits, that income will be attributed to the owner of the policy and taxed currently. If a corporation owns a life insurance policy, investment income is included in alternative minimum taxable income.

Impact

The interest exclusion on life insurance savings allows policyholders to pay for a portion of their personal insurance with tax-free interest income. Although the interest earned is not currently paid to the policyholder, it covers part of the cost of the insurance coverage and it may be received in cash if the policy is terminated. The tax-free interest income benefit can be substantial, despite limitations imposed in the late 1980s on the amount of income that can accumulate tax-free in a contract.

The tax deferral for interest credited to annuity contracts allows taxpayers to save for retirement in a tax-deferred environment without restrictions on the amount that can be invested for these purposes. Although the taxpayer cannot deduct the amounts invested in an annuity, as is the case for contributions to qualified pension plans or some IRAs, the tax deferral on the income credited to life insurance investments can benefit taxpayers significantly.

These provisions thus offer preferential treatment for the purchase of life insurance coverage and for savings held in life insurance policies and annuity contracts. Middle-income taxpayers, who make up the bulk of the life insurance market, may reap most of this provision's benefits. Many higher-income taxpayers, once their life insurance requirements are satisfied, generally obtain better after-tax yields from tax-exempt state and local obligations or tax-deferred capital gains. Some very wealthy individuals, however, can gain tax advantages through other forms of life insurance, such as closely held life insurance companies (CHLICs or CICs) or private placement life insurance (PPLI), which may serve as an intergenerational wealth transfer tool.

Rationale

The exclusion of death benefits paid on life insurance dates back to the 1913 tax law (P.L. 63-16). While no specific reason was given for exempting such benefits, insurance proceeds may have been excluded because they

were believed to be comparable to bequests, which also were excluded from the tax base.

The nontaxable status of the life insurance inside build-up and the tax deferral on annuity investment income also dates from 1913. Floor discussions of the bill made it clear that inside build-up was not taxable, and that amounts received during the life of the insured would be taxed only when they exceeded the investment in the contract (premiums paid), although these points were not included in the law explicitly. These views were, in part, based on the general tax principle of constructive receipt. Policyholders, in this view, did not own the interest income because to receive that interest income they would have to give up the insurance protection or the annuity guarantees. Over time, however, Congress apparently has found the exclusion rationale based on the constructive receipt doctrine less persuasive in some cases, having taken some steps to limit tax-free inside build-up in recent decades.

The inside build-up in several kinds of insurance products was made taxable to the policy owners in the late 1980s. For example, corporate-owned policies were included under the minimum tax in the Tax Reform Act of 1986 (P.L. 99-514); and the Deficit Reduction Act of 1984 (P.L. 98-369) and the Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) imposed taxes on inside build-up and distributions for policies with an overly large investment component. On the other hand, during consideration of the Tax Reform Act of 1986, Congress rejected a comprehensive proposal included in President Reagan's tax reform initiative that would have imposed current taxation on all inside build-up in life insurance policies. The President's Advisory Panel on Federal Tax Reform, which issued its final report in November 2005, recommended elimination of the exemption on life insurance investment earnings. Instead the Advisory Panel favored savings incentives which would treat various investment vehicles in a more neutral manner. No legislation so far enacted has implemented recommendations of the Advisory Panel.

Assessment

The tax treatment of policy income combined with the tax treatment of life insurance company reserves (see "Special Treatment of Life Insurance Company Reserves," below) makes investments in life insurance policies virtually tax-free. Cash value life insurance can operate as an investment vehicle that combines life insurance protection with a financial instrument that operates similarly to bank certificates of deposit and mutual fund

investments. This exemption of inside build-up distorts investors' decisions by encouraging them to choose life insurance over competing savings vehicles such as bank accounts, mutual funds, or bonds. The result could be overinvestment in life insurance and excessive levels of life insurance protection relative to what would occur if life insurance products competed on a level playing field with other investment opportunities.

A risk-averse and forward-looking family can use life insurance, in conjunction with investments in stocks and bonds, to hedge against the financial consequences of an unexpected loss of a wage earner. Many families, according to some economists, fail to buy enough life insurance to protect surviving family members from a sharp drop in income and living standards that the death of a wage-earner could cause. Such families, whose financial vulnerabilities are not offset by insurance benefits, may be described as underinsured. Encouraging families to buy more life insurance could reduce those families' financial vulnerabilities. Whether the tax exemption on life insurance benefits, however, induces families to buy prudent levels of life insurance is unclear. Better financial education, for example, may provide a more direct route to helping families reduce financial vulnerabilities due to death or other serious disruptions.

The practical difficulties of taxing policy owners' inside build-up and the desire to avoid subjecting heirs to a tax on death benefits have discouraged many tax reform proposals covering life insurance. Taxing at the company level as a proxy for individual income taxation has been suggested as an alternative.

In the 1980s and 1990s, the inside build-up exclusion helped boost the number of corporate-owned life insurance (COLI) policies (also known as "employer-owned life insurance contracts"). Many firms, which had previously bought policies only for key personnel, bought life insurance on large numbers of lower level employees. Several newspaper articles highlighted purchases of COLI policies bought without employees' knowledge or consent, which have been termed "dead peasant insurance" or "janitor insurance." Many policies, however, were structured so that a corporation would expect to neither gain nor lose from an employee's death.

The IRS argued that such COLI policies served as a tax shelter and successfully sued several major corporations. Those cases limited some of the tax benefits of COLI policies. (See the 2006 Joint Tax Committee summary for citations.) The Pension Protection Act of 2006 (P. L. 109-280) limited tax benefits of COLI policies to key personnel and to benefits paid to

survivors, and requires firms to obtain employees' written consent. Firms with COLI policies generally must report data on IRS Form 8925, *Report of Employer-Owned Life Insurance Contracts*.

The statutory definition of 'key personnel' (26 USC § 101(j)(2)(A)), however, is broadly defined, so that the effect of limiting tax benefits of COLI policies to key personnel may be less than stringent. Such key personnel include the top 35% of employees ranked by compensation and those earning above an inflation-adjusted threshold (\$110,000 for 2009; see 26 USC 414(q)) also fall within that definition. The Joint Tax Committee estimated that these limits will have a negligible effect on revenues. The Obama Administration has proposed further limitations on COLI policies in its budget submissions.

Selected Bibliography

Baldas, Tresa. "Secret' Life Insurance Triggers Suits: Employees Claim Lack of Consent." *National Law Journal*, February 2, 2009.

Brumbaugh, David L. *Taxes and the "Inside Build-Up" of Life Insurance: Recent Issues*. Library of Congress, Congressional Research Service Report RS20923, August 2, 2006.

Peng Chen et al. "Human Capital, Asset Allocation, and Life Insurance," *Financial Analysts Journal*, vol. 62 (January/February 2006), pp. 97-109.

Christensen, Burke A. "Life Insurance: the Under-Appreciated Tax Shelter." *Trusts and Estates* 135 (November 1996), pp. 57-60.

Ernst & Young, Federal Income Taxation of Property and Casualty Insurance Companies, Hoboken, New Jersey: John Wiley and Sons, 1996.

Gallagher, Gregory W. and Charles L. Ratner, eds. *Federal Income Taxation of Life Insurance*, 2nd edition. Chicago: American Bar Association, 1999.

Gokhale, Jagadeesh and Laurence J. Kotlikoff, "The Adequacy of Life Insurance," TIAA-CREF Institute working paper no. RD72, July 2002, available at [http://ssrn.com/abstract=325721].

Goode, Richard. "Policyholders' Interest Income from Life Insurance Under the Income Tax." *Vanderbilt Law Review* 15 (December 1962), pp. 33-55.

Harman, William B., Jr. "Two Decades of Insurance Tax Reform." *Tax Notes* 57 (November 12, 1992), pp. 901-914.

Kotlikoff, Lawrence J. *The Impact of Annuity Insurance on Savings and Inequality*, Cambridge, Mass.: National Bureau of Economic Research, 1984.

KPMG, "Legislative Update: Summary of Insurance Provisions in Administration's FY 2011 Tax Proposals," *Tax News Flash*, no. 2010-59, February 3, 2010, available at

http://www.us.kpmg.com/microsite/taxnewsflash/2010/Feb/1059.html.

Christopher C. Loeber. "Broad-Based, Leveraged Corporate Owned Life Insurance Litigation: The Policyholder's Perspective." Paper presented at the Annual Seminar of the American Bar Association's Insurance Coverage Litigation Committee, March 5, 2004, Tucson, Arizona; available at http://www.morganlewis.com/pubs/378F4D5B-07A1-45A3-804D32A3E82293D5 Publication.pdf.

McClure, Charles E. "The Income Tax Treatment of Interest Earned on Savings in Life Insurance." In *The Economics of Federal Subsidy Programs*. Part 3: Tax Subsidies. (U.S. Congress, Joint Economic Committee.) Washington, DC: U.S. Government Printing Office, July 15, 1972.

Mancini, Mary Anne. "Uses of Life Insurance for the Closely-Held Business." William & Mary Annual Tax Conference, paper 78, 2002; available at http://scholarship.law.wm.edu/tax/78.

Pike, Andrew D. Taxation of Life Insurance Products: Background and Issues. Library of Congress, Congressional Research Service Report RL32000, July 18, 2003.

President's Advisory Panel on Federal Tax Reform. Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System: Report of the President's Advisory Panel on Federal Tax Reform. Washington, DC: November 2005.

PriceWaterhouse Coopers. Continuing Developments in the Taxation of Insurance Companies, ch. 2, January 2007.

Schultz, Ellen E. and Theo Francis, "Companies Profit on Workers' Deaths Through 'Dead Peasants' Insurance", *Wall Street Journal*, April 19, 2002.

- U.S. Congress, Committee on Ways and Means. *Technical and Miscellaneous Revenue Act of 1988*. Report to accompany H.R. 4333. 100th Congress, 2nd session. House Report 100-1104. Washington, DC: Government Printing Office, October 21, 1988, pp. 96-108.
- U.S. Congress, Joint Committee on Taxation. "Life Insurance Tax Provisions." In *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*. Joint Committee Print, 98th Congress, 2nd session. Washington, DC: Government Printing Office, December 31, 1984.
- . Tax Reform Proposals: Taxation of Insurance Products and Companies. Joint Committee Print, 99th Congress, 1st session. Washington: Government Printing Office, September 20, 1985.
- . Present-Law Federal Tax Treatment, Proposals, and Issues Relating to Company-Owned Life Insurance, Joint Committee Print JCX-91-03, 108th Congress. 1st session. Washington: Government Printing Office, October 15, 2003.
- . 'Technical Explanation of H.R. 4, The "Pension Protection Act of 2006," As Passed by the House on July 28, 2006, and As Considered by the Senate on August 3, 2006." Joint Committee Print JCX-38-06, 109th

- Congress, 2nd session. Washington, DC: Government Printing Office, August 3, 2006, pp. 208-222.
- . 'Estimated Budget Effects of H.R. 4, The "Pension Protection Act of 2006," As Introduced in The House of Representatives on July 28, 2006.' Joint Committee Print JCX-36-06, 109th Congress, 2nd session. Washington, DC: Government Printing Office, July 28, 2006, p. 4.
- U.S. Congressional Budget Office. "Options to Increase Revenues: Include Investment Income from Life Insurance and Annuities in Taxable Income." In *Budget Options*. Washington, DC: 2005.
- U.S. Department of the Treasury. *General Explanations of the Administration's FY2011 Revenue Proposals*. Washington, DC: February 2010, pp. 72-73.
- U.S. Department of the Treasury. Report to the Congress on the Taxation of Life Insurance Company Products. Washington, DC: March 30, 1990.
- U.S. Internal Revenue Service. Termination of Appeals Settlement Initiative For Corporate Owned Life Insurance (COLI) Cases. Announcement 2002-96, October 4, 2002; available at http://www.irs.gov/pub/irs-utl/ann_2002-96_coli 10-04-02.pdf.
- . "Treatment of Certain Employer-Owned Life Insurance Contracts," Notice 2009-048, May 2009, available at http://www.irs.gov/pub/irs-drop/n-09-48.pdf.

Vickrey, William S. "Insurance Under the Federal Income Tax," *Yale Law Journal* 52 (June 1943), pp. 554-585.

Webel, Baird and Donald J. Marples. Corporate Owned Life Insurance (COLI): Insurance and Tax Issues, Library of Congress, Congressional Research Service Report RL33414, January 11, 2011.

Commerce and Housing: Insurance Companies

SMALL LIFE INSURANCE COMPANY TAXABLE INCOME ADJUSTMENT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.1	0.1
2012	-	0.1	0.1
2013	-	0.1	0.1
2014	-	0.1	0.1
2015	-	0.1	0.1

Authorization

Section 806.

Description

Life insurance companies with gross assets less than \$500 million may take a special "small life insurance company deduction." This deduction is 60 percent of life insurance company taxable income (before the deduction) for a tax year up to \$3 million. For life insurance company taxable income between \$3 million and \$15 million, the deduction is \$1.8 million minus 15 percent of the taxable income above \$3 million. That is, the deduction phases out as a company's taxable insurance income (before the deduction) increases from \$3 million to \$15 million. A company with taxable insurance income over \$15 million (before the deduction) cannot take the small life insurance company deduction. The taxable income and gross asset standards are generally applied using consolidated group tests.

For example, a company meeting the gross assets requirement with life insurance company taxable income of \$2 million would be eligible for a deduction of \$1.2 million. A company meeting the gross assets requirement with life insurance company taxable income of \$10 million would be eligible

for a deduction of \$750,000 (i.e., \$1.8 million minus 15 percent of \$7 million).

Impact

The small life insurance company deduction reduces the tax rate for "small" life insurance companies. An insurer with assets of up to \$500 million and taxable incomes of up to \$15 million is small relative to very large companies that comprise most of the industry. A company eligible for the maximum small company deduction of \$1.8 million (i.e., for a company with life insurance company taxable income of exactly \$3 million) is, in effect, taxed at a rate of 13.6 percent instead of the regular 34 percent corporate rate.

Determining how benefits for the small life insurance company deduction are distributed is difficult because ownership of these companies may be widely dispersed, either among shareholders in stock companies or policyholders in mutual companies. Competitive pressures may force companies to pass some of these benefits on to life insurance policyholders via lower premiums.

Some business owners have created small life insurance companies—so-called microcaptives—as part of a tax avoidance strategy. How extensively microcaptives are being used to avoid taxes is unknown.

Rationale

The Deficit Reduction Act of 1984 (P.L. 98-369), which made major revisions to the taxation of life insurance companies, included a small life insurance company deduction. The Senate Finance Committee in 1984 noted that "small life insurance companies have enjoyed a tax-favored status for some time." For example, early 20th century tax laws, such as the 1909 law (P.L. 61-5, §38), excluded "fraternal beneficiary societies, orders, or associations operating under the lodge system," which according to some estimates, provided life insurance to about 30 percent of the adult population. The Senate Finance Committee in 1984 concluded that while "Congress believed that, without this provision [the small life insurance company deduction], the Act provided for the proper reflection of taxable income, . . . it would not be appropriate to dramatically increase their tax burden at this time."

A companion provision (the special life insurance company deduction), which allowed all life insurance companies a deduction of 20 percent of

tentative life insurance company taxable income, was repealed in the Tax Reform Act of 1986 (P.L. 99-514, § 1011(a)). The deduction for small companies, however, was retained.

Assessment

The principle of basing taxes on the ability to pay, often put forth as a requisite of an equitable and fair tax system, does not justify reducing taxes on business income for firms below a certain size. Tax burdens are ultimately borne by persons, such as business *owners*, customers, employees, or other individuals, not by firms. The burden that a business's taxes places on a person is not determined by the size of the business.

Imposing lower tax rates on smaller firms distorts the efficient allocation of resources, since it offers a cost advantage based on size and not economic performance. This tax reduction serves no simplification purpose, since it requires an additional set of computations and some complex rules to prevent abuses. It may help newer insurance companies become established and build up the reserves required by state laws. In other lines of insurance such as auto coverage, however, new entrants have quickly achieved significant market shares without such tax advantages.

Selected Bibliography

Beito, David T. "This Enormous Army:' The Mutual-Aid Tradition of American Fraternal Societies Before the 20th Century," in *The Voluntary City* (eds., David T. Beito, Peter Gordon, and Alexander Tabarrok), Ann Arbor, MI: Michigan University Press, 2002.

Johnson, J. Walker and Alexis MacIvor. "Taxation Of Life Insurance Companies," manuscript, Steptoe & Johnson LLP, January 2012; available at http://www.steptoe.com/assets/attachments/3343.pdf.

Murray, John E. Origins of American Health Insurance: A History of Industrial Sickness Funds. New Haven, CT: Yale University Press, 2007.

Nowotny. Gerald. "Captive Insurance Companies Provide Tax and Economic Advantages for Hedge Funds," *Journal of Taxation of Investments*, vol. 25, no. 3 (Spring 2008), pp. 3-18.

- U.S. Congress, Joint Committee on Taxation. "Tax Treatment of Life Insurance Companies." In *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984.* Joint Committee Print, 98th Congress, 2nd session. Washington, DC: Government Printing Office, December 31, 1984, pp. 582-593.
- . Tax Reform Proposals: Taxation of Insurance Products and Companies. Joint Committee Print, 99th Congress, 1st session. Washington, DC: Government Printing Office, September 20, 1985.

Commerce and Housing: Insurance Companies

SPECIAL TREATMENT OF LIFE INSURANCE COMPANY RESERVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	2.3	2.3
2012	<u>.</u>	2.4	2.4
2013	-	2.6	2.6
2014	-	2.7	2.7
2015	-	2.8	2.8

Authorization

Sections 803(a)(2), 805(a)(2), 807.

Description

Life insurance companies can deduct net additions to reserves used to pay future liabilities and must add net subtractions to reserves to their income, subject to certain requirements on reserves set out in Section 807. The ability to deduct net additions to reserves may allow life insurance companies to defer paying some taxes, thus reducing those companies' tax burden by allowing them to offset current income with future expenses. The match between the timing of taxable income and deductible expenses is, in general, closer for other businesses.

Special provisions govern the taxation of life insurance companies, which reflect the nature of the life insurance market. First, a life insurance company must count all premiums paid by insurance customers as income. Second, a company may deduct net additions to its life insurance reserves.

For example, after a customer signs an insurance contract and pays a one-time premium of \$5,000, the company records that amount as income. If

the policy promises the beneficiary a payment of \$100,000 when the customer dies, then the company puts aside some portion of the premium into a reserve to cover that payment, which is deducted from the insurer's income. The insurer performs an actuarial calculation to find the present value of the insurance benefit, which is the minimum investment needed to fund the expected costs of a \$100,000 payout when the customer dies. If the firm calculates that the present value of the life insurance benefit is \$3,000 then the firm earns an underwriting profit of \$2,000, net of other expenses. If, when the customer dies, the portion of the insurance reserve tied to that contract were \$95,000, the insurer would show a net deduction \$5,000 (i.e., the \$100,000 payout minus the \$95,000 reserve).

If the insurer used more conservative actuarial assumptions, so that present value of the life insurance benefit were calculated to be \$4,000, then the underwriting profit would be only \$1,000. Thus, using more conservative actuarial assumptions reduces the insurer's taxable income by \$1,000 in the current tax year, and increases the size of the accumulated reserve at the time of the customer's death, which increases the insurer's taxable income in the future. Thus, more conservative actuarial assumptions reduce underwriting profits (taxable now) and increase the surplus of the accumulated reserves over payouts in the future, allowing firms to defer taxation by converting underwriting profits into reserves. For that reason, Section 807 provides detailed requirements on actuarial assumptions used to calculate appropriate levels of reserves.

Impact

Reserves are accounts recorded in the liabilities section of balance sheets to indicate a claim against assets for future expenses. When life insurance companies can deduct additions to the reserve accounts when computing taxable income, they can purchase assets using tax-free (or tax-deferred) income. Reserve accounting shelters both premium and investment income from tax because amounts added to reserves include both premium income and the investment income earned by the invested assets. A large part of the reserves of life insurance companies is credited to individual policyholders, who also pay no tax on this investment income (see "Exclusion of Investment Income on Life Insurance and Annuity Contracts," above).

Competition in the life insurance market could compel companies to pass along corporate tax reductions to policyholders. Thus, this tax expenditure may benefit life insurance consumers as well as shareholders of private stock insurance companies. For mutual life insurance companies, policyholders may benefit either through lower premiums, better service, or higher policyholder dividends.

Rationale

The 1909 corporate income tax (P.L. 61-5) allowed insurance companies to deduct additions to reserves required by law and sums (besides dividends) paid on claims and annuities within the year. Some form of reserve deduction has been allowed ever since. Originally, the accounting rules of most regulated industries were adopted for tax purposes, and reserve accounting was required by all state insurance regulations. The many different methods of taxing insurance companies used since 1909 have all allowed some form of reserve accounting.

Before the Deficit Reduction Act of 1984 (P.L. 98-369), which set the current rules for taxing life insurance companies, reserves were those required by state law and generally computed by state regulatory rules. Congress, concluding that the conservative regulatory rules allowed a significant overstatement of deductions, set rules for tax reserves that specified what types of reserves would be allowed and what discount rates would be used.

Assessment

Reserve accounting allows the deduction of expenses relating to the future from current income. Reserve accounting is standard among state insurance regulators, which supervise life insurance companies operating in their state. The primary goal of state insurance regulators is actuarial solvency: that is, ensuring that companies will be able to pay promised benefits. The understatement of current income and conservative actuarial assumptions in that context is a virtue rather than a vice.

Under the federal income tax, however, understating current income provides a tax advantage. Combined with virtual tax exemption of life insurance product income at the individual level, this tax advantage makes life insurance a far more attractive investment vehicle than it would otherwise be and leads to the overpurchase of insurance and overinvestment in insurance products.

One often-proposed solution would retain reserve accounting but limit the deduction to amounts actually credited to the accounts of specific policyholders, who would then be taxed on the additions to their accounts. This would assure that all premium and investment income not used to pay current expenses was taxed at either the company or individual level, more in line with the tax treatment of banks, mutual funds, and other competitors of the life insurance industry.

Selected Bibliography

Aaron, Henry J. *The Peculiar Problem of Taxing Life Insurance Companies*. Washington, DC: The Brookings Institution, 1983.

Harman, William B., Jr. "Two Decades of Insurance Tax Reform." *Tax Notes* 57 (November 12, 1992), pp. 901-914.

Johnson, J. Walker and Alexis MacIvor. "Taxation Of Life Insurance Companies," manuscript, Steptoe & Johnson LLP, January 2012; available at http://www.steptoe.com/assets/attachments/3343.pdf.

Kopcke, Richard W. "The Federal Income Taxation of Life Insurance Companies." New England Economic Review. (March/April 1985), pp. 5-19.

Pike, Andrew D. *Taxation of Life Insurance Companies*. Library of Congress, Congressional Research Service Report RL32180, December 24, 2003.

Taylor, Jack. "Federal Taxation of the Insurance Industry." In *The Encyclopedia of Taxation and Tax Policy (2nd ed.)*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington DC: Urban Institute Press, 2005.

- U.S. Congress, Joint Committee on Taxation. "Life Insurance Tax Provisions." In *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984.* Joint Committee Print, 98th Congress, 2d session. Washington, DC: Government Printing Office, December 31, 1984.
- . Tax Reform Proposals: Taxation of Insurance Products and Companies. Joint Committee Print, 99th Congress, 1st session. Washington, DC: Government Printing Office, September 20, 1985.
- . Taxation of Life Insurance Companies. Joint Committee Print, 101st Congress, 1st session. Washington, DC: Government Printing Office, October 16, 1989, pp. 8-11.
- U.S. Department of the Treasury. Final Report to the Congress on Life Insurance Company Taxation. Washington, DC, 1989.
- . Tax Reform for Fairness, Simplicity, and Economic Growth, Volume 2, General Explanation of the Treasury Department Proposals. Washington, DC, November 1984, pp. 268-269.
- U.S. General Accounting Office, Tax Treatment of Life Insurance and Annuity Accrued Interest, Report to the Chairman of the House Ways and Means Committee and Senate Finance Committee, GAO/GGD-90-31, January 1990, available at http://archive.gao.gov/d27t7/140600.pdf.

Commerce and Housing: Insurance Companies

SPECIAL DEDUCTION FOR BLUE CROSS AND BLUE SHIELD COMPANIES

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011		0.4	0.4
2012	-	0.4	0.4
2013	-	0.4	0.4
2014	-	0.5	0.5
2015	-	0.5	0.5

Authorization

Section 833.

Description

Blue Cross and Blue Shield and a number of smaller health insurance providers that existed on August 16, 1986, and other nonprofit health insurers that meet certain community-service and medical loss ratio standards receive special tax treatment. A medical loss ratio (MLR), also called a loss ratio or health benefit ratio, is total health benefits paid divided by premium income and is a common, albeit rough, indicator of profitability and administrative efficiency.

The Blue Cross and Blue Shield special deduction has two main features. First, eligible health insurers are treated in the tax law as stock property and casualty insurance companies. Eligible organizations, however, can fully deduct unearned premiums, unlike other property and casualty insurance companies. Second, eligible companies may take a special deduction of 25 percent of the year's health-related claims and expenses minus its accumulated surplus at the beginning of the year (if such claims and expenses exceed the accumulated surplus). For example, if an eligible

health insurer had claims and related expenses of \$150 million and an accumulated surplus of \$110 million during a tax year, it could take a special deduction of \$10 million (i.e., 25 percent of the difference between \$150 million and \$110 million). The special deduction is also known as the "three-month" deduction because when an eligible insurer's health-related claims and expenses exceed its accumulated surplus, it may deduct a quarter of the difference for the year.

The special deduction only applies to net taxable income for the year and cannot be used in alternative minimum tax calculations. Therefore, net income for eligible organizations is subject to a minimum tax rate of 20 percent.

Impact

Blue Cross/Blue Shield organizations traditionally provided community-rated health insurance. The special deduction for Blue Cross/Blue Shield plans may help offset costs of providing high-risk and small-group coverage. While Blue Cross/Blue Shield affiliates were originally not allowed to organize as for-profits, in 1994, Blue Cross/Blue Shield guidelines were amended to let affiliates reorganize as for-profit insurers. This led more than a dozen Blue Cross/Blue Shield affiliates to convert to for-profit status. Blue Cross/Blue Shield affiliates that reorganized after August 16, 1986 are ineligible for the special deduction.

Affiliates that are eligible for the special deduction cannot be owned by investors, so the special deduction could also benefit either their subscribers or all health insurance purchasers (through reduced premiums), their managers and employees (through increased compensation), or affiliated hospitals and physicians (through increased fees). Some have raised concerns that management and investors involved in Blue Cross/Blue Shield conversions to for-profit organizations have gained enormous benefits from previous tax advantages, even as most conversions have included establishment of a foundation to fund civic interests in the area of health. In 2002, New York State absorbed an estimated \$2 billion in social assets accumulated by Empire Blue Cross/Blue Shield and promised to use those resources to fund health programs.

Rationale

The "Blues" had been ruled tax-exempt by Internal Revenue regulations since their inception in the 1930s, apparently because they were regarded as

community service organizations. The Tax Reform Act of 1986 (P.L. 99-514) removed Blue Cross/Blue Shield plans' tax exemption because Congress believed that "exempt charitable and social welfare organizations that engage in insurance activities are engaged in an activity whose nature and scope is inherently commercial rather than charitable," and that "the tax-exempt status of organizations engaged in insurance activities provided an unfair competitive advantage." The 1986 Act, however, introduced the special deduction described above, in part because of their continuing, albeit more limited, role in providing community-rated health insurance. In particular, Section 833(c)2(c) links the special deduction for Blue Cross/Blue Shield plans to the provision of high-risk and small-group coverage.

The Patient Protection and Affordable Care Act (PPACA; P.L. 111-148, §9016) links special deduction tax benefits enjoyed by Blue Cross/Blue Shield organizations to a medical loss ratio (MLR) threshold. Blue Cross/Blue Shield organizations have to maintain a MLR of at least 85% for tax years starting after December 31, 2009. More generally, PPACA requires private health plans meet a minimum MLR requirements (80% in the individual and small group business, and 85% in large group) for plan years starting after September 2010.

Assessment

Differences in price and coverage between the health insurance products offered by Blue Cross and Blue Shield plans and those offered by commercial insurers, in the view of Congress, have faded over time. Some of the plans have accumulated enough surplus to purchase unrelated businesses. Many receive a substantial part of their income from administering Medicare or self-insurance plans of other companies. Some have argued that these tax preferences have benefitted their managers and their affiliated hospitals and physicians more than their communities.

Blue Cross and Blue Shield organizations, however, retain a commitment to offer high-risk and small-group insurance coverage in their charters. Some continue to offer policies with premiums based on community payout experience ("community rated"). The tax exemption previously granted to the "Blues," as well as the current special deduction, presumably have helped support these community-oriented activities.

Selected Bibliography

Austin, D. Andrew and Thomas L. Hungerford. *The Market Structure of the Health Insurance Industry*. Library of Congress, Congressional Research Service Report R40834. Washington, DC: May 25, 2010.

Conover, Christopher J. "Impact of For-Profit Conversion of Blue Cross Plans: Empirical Evidence," paper presented at the Conversion Summit, Princeton University, December 5, 2008.

Embry-Thompson, Leah D. and Robert K. Kolbe. "Federal Tax Exemption of Prepaid Health Care Plans after IRC 501(m)." Exempt Organizations 1992 Continuing Professional Education Text. Available at [www.irs.gov/pub/irs-tege/eotopicl92.pdf].

Ernst & Young, Federal Income Taxation of Property and Casualty Insurance Companies, Hoboken, New Jersey: John Wiley and Sons, 1996.

Kirchhoff, Suzanne M. and Janemarie Mulvey. *Medical Loss Ratio Requirements Under the Patient Protection and Affordable Care Act (ACA): Issues for Congress*, Library of Congress, Congressional Research Service Report R42735. Washington, DC: September 18, 2012.

Law, Sylvia A. *Blue Cross: What Went Wrong?* New Haven: Yale University Press, 1974.

McGovern, James J. "Federal Tax Exemption of Prepaid Health Care Plans." *The Tax Adviser* 7 (February 1976), pp. 76-81.

McNurty, Walter. "Big Questions for the Blues: Where to from Here?" *Inquiry* 33 (Summer 1996), pp. 110-117.

PriceWaterhouse Coopers. Continuing Developments in the Taxation of Insurance Companies, ch. 8, January 2007.

Robinson, James C. "The Curious Conversion Of Empire Blue Cross," *Health Affairs*, 22(4), 2003, pp. 100-118.

Shill, Otto. "Revocation of Blue Cross and Blue Shield's Tax-Exempt Status: An Unhealthy Change?" *Boston University Journal of Tax Law* 6, 1988, pp. 147-176.

Starr, Paul. *The Social Transformation of American Medicine*. New York: Basic Books, 1983, pp. 290-310.

Taylor, Jack. *Blue Cross/Blue Shield and Tax Reform*. Library of Congress, Congressional Research Service Report 86-651 E. Washington, DC: April 9, 1986.

- . Income Tax Treatment of Health Care Insurers. Library of Congress, Congressional Research Service Report 94-772 E. Washington, DC: October 5, 1994.
- U.S. Congress, Joint Committee on Taxation. "Tax Exempt Organizations Engaged in Insurance Activities." In *General Explanation of the Tax Reform Act of 1986*. Joint Committee Print, 100th Congress, 1st session. Washington, DC: Government Printing Office, May 4, 1987, pp. 583-592.

- . Description and Analysis of Title VII of H.R. 3600, S. 1757, and S. 1775 ("Health Security Act"), Joint Committee Print, 103rd Congress, 1st session. Washington, DC: Government Printing Office, December 20, 1993, pp. 82-96.
- U.S. General Accounting Office, *Health Insurance: Comparing Blue Cross and Blue Shield Plans With Commercial Insurers*, HRD-86-110, July 11, 1986, available at [http://archive.gao.gov/d4t4/130462.pdf].
- U.S. Internal Revenue Service, "Conversion of Nonprofit Organizations, coordinated issue paper LMSB-04-0408-024, June 4, 2008, available at [http://www.irs.gov/businesses/article/0,.id=183646,00.html].

Wasley, Terree P. "Health Care in the Twentieth Century: A History of Government Interference and Protection." *Business Economics* 28 (April 1993), pp. 11-17.

Weiner, Janet Ochs. "The Rebirth of the Blues." *Medicine and Health* Supplement (February 18, 1991).

Commerce and Housing: Insurance Companies

TAX-EXEMPT STATUS AND ELECTION TO BE TAXED ONLY ON INVESTMENT INCOME FOR CERTAIN SMALL NON-LIFE INSURANCE COMPANIES

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	==	0.1	0.1
2012	-	0.1	0.1
2013	-	0.1	0.1
2014	-	0.1	0.1
2015	-	0.1	0.1

Authorization

Sections 321(a), 832, 834, 501(c)(15).

Description

Insurance companies not classified as life insurance companies, which for the most part are property and casualty insurance companies, enjoy tax-exempt status if their gross receipts for a tax year are \$600,000 or less and if premiums account for 50 percent or less of those gross receipts. Mutual insurance companies may enjoy tax-exempt status if their gross receipts for a tax year are \$150,000 or less, and if more than 35 percent of those gross receipts consist of premiums. This tax-exempt status is subject to a controlled group rule. Legislation enacted in 2004 (P.L. 108-218) changed the gross receipt's requirements to limit certain tax sheltering strategies using 501(c)(15) insurers.

Slightly larger insurance companies not classified as life insurance companies may elect to be taxed only on their taxable investment income so long as net written premiums and direct written premiums each do not exceed \$1.2 million. Small non-life insurance companies that elect to receive

this tax treatment cannot reverse that decision without a waiver from the Treasury Secretary. The small non-life insurance election provision is subject to a 50 percent controlled group rule.

Impact

Some very small non-life insurance companies are exempted from taxation entirely, while slightly larger non-life insurance companies may choose a potentially advantageous tax status instead of being taxed at the regular corporate tax rate of 34 percent.

Determining how benefits of the small non-life insurance company deduction are distributed is difficult because ownership of some of these companies may be widely dispersed. Competitive pressures may force companies to pass some of these benefits on to insurance policyholders via lower premiums. In other cases, a set of companies may set up a "captive" or "minicaptive" insurance company, which provides insurance policies in exchange for premiums. In these cases, stakeholders in the parent companies benefit from the tax exemption. The insurance company, however, must accomplish bona fide "risk shifting" and "risk distribution" in order to qualify as an insurance company under tax law. Some business owners have created small insurance companies—so-called microcaptives—as part of a tax avoidance strategy.

Rationale

Early 20th century tax laws, such as the 1909 law (P.L. 61-5, §38), excluded "fraternal beneficiary societies, orders, or associations operating under the lodge system," which according to some estimates, provided life insurance to about 30 percent of the adult population. Since that time, small insurance companies of all types have received various tax advantages. The Revenue Act of 1954, included mutual non-life and non-marine insurance companies with gross receipts of \$150,000 or less among the tax-exempt institutions set out in section 501(c). These provisions may have been included to encourage formation of small insurance companies to serve specific groups of individuals or firms that could not easily obtain insurance through existing insurers.

The Tax Reform Act of 1986 (P.L. 99-514) broadened the exemption by allowing individuals and corporations to take advantage of the exemption, and increased the cap on gross receipts to \$350,000. Congress held that previous provisions affecting small insurers were "inordinately complex"

and the "small company provision [should be extended] to all eligible small companies, whether stock or mutual." After the 1986 change, several wealthy individuals and corporations were able to avoid large amounts of taxes by creating 501(c)(15) insurers that were used to hold reserves in excess of levels required to pay claims. Legislation enacted in 2004 (P.L. 108-218) changed the gross-receipts requirements to these 501(c)(15) insurance company tax sheltering strategies.

Assessment

The principle of basing taxes on the ability to pay, often put forth as a requisite of an equitable and fair tax system, does not justify reducing taxes on business income for firms below a certain size. Tax burdens are ultimately borne by persons, such as business *owners*, customers, employees, or other individuals, not by firms. The burden that a business's taxes place on a person is not determined by the size of the business.

Imposing lower tax rates on smaller firms distorts the efficient allocation of resources, since it offers a cost advantage based on size and not economic performance. This tax reduction serves no simplification purpose, since it requires an additional set of computations and some complex rules to prevent abuses. The tax reduction may help newer insurance companies become established and build up the reserves required by state laws, although it may also help perpetuate inefficient insurance companies. In other lines of insurance such as auto coverage, however, new entrants have quickly achieved significant market shares without such tax advantages.

These special tax rules for small non-life insurance companies may expand strategies available to very wealthy individuals to avoid or reduce tax liabilities. How extensively these strategies, which reduce federal revenues and may raise equity issues, are being used is unknown.

Selected Bibliography

Adkisson, Jay. Adkisson's Captive Insurance Companies: An Introduction to Captives, Closely-Held Insurance Companies, and Risk Retention Groups, Bloomington, IN: iUniverse, 2006.

Beito, David T. "This Enormous Army: The Mutual-Aid Tradition of American Fraternal Societies Before the 20th Century," in *The Voluntary City* (eds., David T. Beito, Peter Gordon, and Alexander Tabarrok), Ann Arbor, MI: University of Michigan Press, 2002.

Ernst & Young, Federal Income Taxation of Property and Casualty Insurance Companies, Hoboken, New Jersey: John Wiley and Sons, 1996.

Hirsh, Bobbe and Alan S. Lederman. "The Service Clarifies the Facts and Circumstances Approach to Captive Insurance Companies." *Journal of Taxation*, vol. 100, no. 3 (March 2004).

Lederman, Alan S. "Update on Captive Insurance Companies," *Journal of Taxation*, vol. 100 (2004), p. 318.

Johnson, J. Walker and Alexis MacIvor. "Taxation Of Property and Casualty Insurance Companies," manuscript, Steptoe & Johnson LLP, January 2012; available at

http://www.steptoe.com/assets/attachments/3344.pdf.

Johnston, David C. "Help for Bad Times Now Helps Rich." New York Times, April 1, 2003, p. C1.

— . Perfectly Legal, New York: Penguin, 2003, ch. 13.

Murray, John E. Origins of American Health Insurance: A History of Industrial Sickness Funds. New Haven, CT: Yale University Press, 2007.

Nowotny, Gerald. "Captive Insurance Companies Provide Tax and Economic Advantages for Hedge Funds," *Journal of Taxation of Investments*, vol. 25, no. 3 (Spring 2008), pp. 3-18.

- U.S. Congress, Joint Committee on Taxation. "Property and Casualty Insurance Company Taxation." In *General Explanation of the Revenue Provisions of the Tax Reform Act of 1986*. Joint Committee Print, 100th Congress, 1st session. Washington, DC: Government Printing Office, May 4, 1987, pp. 619-621.
- . Tax Reform Proposals: Taxation of Insurance Products and Companies. Joint Committee Print, 99th Congress, 1st session. Washington, DC: Government Printing Office, September 20, 1985.
- U.S. Internal Revenue Service, "IRC 501(c)(15) Small Insurance Companies or Associations," *Exempt Organization Continuing Professional Education Text*, 1989, available at: [http://www.irs.ustreas.gov/pub/irstege/eotopicl89.pdf].
- . "Modification of Exemption From Tax for Small Property and Casualty Insurance Companies," Notice 2004-64.
- . "Determination of Gross Receipts for Purposes of Section 501(c)(15), Notice 2006-42
- . Revenue Ruling 2005-40, *Internal Revenue Bulletin* 2005-27, July 5, 2005.

Commerce and Housing: Insurance Companies

INTEREST RATE AND DISCOUNTING PERIOD ASSUMPTIONS FOR RESERVES OF PROPERTY AND CASUALTY INSURANCE COMPANIES

Estimated Revenue Loss [In billions of dollars]

_	Fiscal year	Individuals	Corporations	Total
_	2011	-	0.7	0.7
	2012	-	0.7	0.7
	2013	-	0.8	0.8
	2014	-	0.8	0.8
	2015	-	0.8	0.8

Authorization

Sections 831, 832(b), 846

Description

The way in which the present values of future losses for property and casualty insurance companies are calculated may provide those insurers with a tax advantage. A present value is the current equivalent value of a given cash flow and is calculated using interest rates or discount factors and information about the timing of income and losses. Most businesses calculate taxable income by deducting expenses when the business becomes liable for paying them. A significant portion of losses paid by property and casualty insurance companies are paid years after premiums were collected. Funds that an insurer holds between payment of premiums and disbursement of loss claims are known as "float" and investment earnings on those funds are an important source of revenue in some lines of insurance.

State regulators typically require insurers to maintain minimum levels of loss reserves to ensure solvency, that is, the ability to pay all future claims. On the other hand, if loss reserves are well above levels needed to ensure

solvency, an insurer may be able to shift current earnings into future years, thus deferring tax payments. In other words, some form of discounting is appropriate to ensure that premium income, received when a policy is written, is properly matched with associated losses that occur later. If losses in future years are not fully discounted, the insurer may enjoy a tax advantage through the ability to defer loss payments.

Each year, the Treasury Secretary specifies discount factors (based on interest rates and an estimated profile of losses over time) for various lines of property and casualty insurance that insurers use to compute present values of future losses for tax purposes. In some cases, property and casualty insurers may use discount rates reflecting their own claims experience. A financially sophisticated insurer, however, may be able to finance future loss payouts more cheaply than calculations based on tax law and Treasury-specified discount rates would indicate. In effect, this would allow an insurer to shift some net earnings into the future, thus deferring and lowering its tax burden.

In particular, under current law the Treasury Department calculates an interest rate that is used to develop discount rates for computing present values of loss reserves. Long-term market interest rates, however, are generally higher than short-term interest rates because investors typically require a higher yield for investments that limit their choices for a longer period of time. This suggests that the present value of losses paid in the near future, calculated using present tax methods, may be overstated relative to market values, while the present value of losses paid farther into the future may be underestimated. In addition, the current tax law truncates the stream of losses. For example, for some lines of insurance, losses that occur more than ten years in the future are treated for tax purposes as occurring ten years in the future. This truncation tends to increase the estimated present value of losses under current tax methods.

Impact

If the net present value of losses payable by property and casualty insurers calculated for tax purposes is greater than the true net present value of those losses based on efficient financial strategies, then those insurance companies may enjoy some managerial discretion on how net earnings are allocated over time. That discretion may allow management of insurers to reduce their federal tax burden, or to smooth earnings to make the insurer's stock more attractive to investors.

Determining the distribution of benefits of this tax provision is difficult because ownership of most property and casualty insurance companies is widely dispersed, either among shareholders in stock companies or policyholders in mutual companies. Competitive pressures may force companies to pass some of these benefits on to property and casualty insurance policyholders via lower premiums.

Rationale

Property and casualty insurers' loss reserve deductions before the Tax Reform Act of 1986 (P.L. 99-514) were based on the simple sum of expected payments for claim losses. Congress determined that this practice did not accurately measure the costs of these insurers, because property and casualty insurance companies, unlike other taxpayers, could deduct losses before they were paid. Because current dollars are more valuable than future dollars because of the time value of money, allowing insurers to deduct losses ahead of actual payment reduced insurers' tax burden.

Since 1987, the loss reserve deduction has been calculated using a discounted loss reserve. The allowable current-year deduction for loss reserves since 1987 has been the accident-year's discounted loss reserve at the beginning of the tax year plus the strengthening in all prior accident-year discounted loss reserves. While these discounting rules reduced insurers' tax advantages, the discounting methodology implemented by the Tax Reform Act of 1986 probably overstates the true market-based present value of future losses of these insurers.

Requiring most property and casualty companies to calculate the present value of future losses using a methodology given by the Tax Reform Act of 1986 using discount rates specified by the Treasury may simplify the calculation of tax liability for those insurers. In addition, the relative simplicity of these methods may help ensure that the tax treatment of property and casualty companies is uniform. In addition, the computational and administrative burden on the Treasury Department may be minimized by using simple discounting and loss profile methods. Most large property and casualty companies, however, have been considered financially sophisticated firms, which would use standard strategies to minimize the costs of carrying loss reserves.

Assessment

Allowing some firms, such as property and casualty insurance companies, to defer certain tax liabilities requires other taxpayers to bear higher burdens, or reduces federal revenues. This tax provision may serve a simplification purpose, although the Treasury Department and insurance companies are likely well equipped to promulgate and apply discounting methods that more closely approximate efficient financing strategies for loss reserve management. Allowing property and casualty insurance companies an advantageous tax status, based on the potential mismatch between simple tax rules and actual financial management practices, may allow those insurers to attract economic resources from other sectors of the economy, thus creating economic inefficiencies.

Selected Bibliography

Anthony, J. and K. Petroni. "Accounting Estimation Errors and Firm Valuation in the Property-Casualty Insurance Industry." *Journal of Accounting, Auditing, and Finance* (Summer 1997), pp. 257-281.

Beaver, W. and M. McNichols. The Characteristics and Valuation of Loss Reserves of Property-Casualty Insurers. *Review of Accounting Studies 3* (1998), pp. 73-95.

Browne, Mark J., Yu-Luen Ma, and Ping Wang. "Stock Option Compensation and Managerial Discretion in the Insurance Industry: Are Reserves Manipulated to Enhance Profitability?" Working paper, December 3, 2004. Available at http://ssrn.com/abstract=629383>.

Ernst & Young, Federal Income Taxation of Property and Casualty Insurance Companies, Hoboken, New Jersey: John Wiley and Sons, 1996.

Johnson, J. Walker and Alexis MacIvor. "Taxation Of Property and Casualty Insurance Companies," manuscript, Steptoe & Johnson LLP, January 2012; available at

http://www.steptoe.com/assets/attachments/3344.pdf.

Leverty, J. Tyler and Grace, Martin F., "Property-Liability Insurer Reserve Error: Motive. Manipulation, or Mistake?" Working paper, July 2, 2010. Available at SSRN: http://ssrn.com/abstract=964635.

Petroni, K. "Optimistic Reporting in the Property-Casualty Insurance Industry." *Journal of Accounting and Economics* 15 (December 1992), pp. 485-508.

Randolph, David W., Gerald L. Salamon, and Jim A Seida. "Quantifying the Costs of Intertemporal Taxable Income Shifting: Theory and Evidence from the Property-Casualty Insurance Industry." Working paper, February 18, 2004. Available at http://ssrn.com/abstract=546297>.

Ryan, S. and J. Wahlen. "Discretionary and Non-discretionary Revisions of Loss Reserves by Property-Casualty Insurers: Differential Implications for

Future Profitability, Risk, and Market Value." *Review of Accounting Studies* 5, 2000, pp. 95-125.

- U.S. Congress, Joint Committee on Taxation. "Property and Casualty Insurance Company Taxation." In *General Explanation of the Revenue Provisions of the Tax Reform Act of 1986.* Joint Committee Print, 100th Congress, 1st session. Washington, DC: Government Printing Office, May 4, 1987, pp. 600-618.
- U.S. Internal Revenue Service, Revenue Proc. 2002-74, 2002-2 C.B. 980.
- . Revenue Proc. 2007-9, *Internal Revenue Bulletin* 2007-3, January 16, 2007.

Commerce and Housing: Insurance Companies

15-PERCENT PRO-RATION FOR PROPERTY AND CASUALTY INSURANCE COMPANIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.3	0.3
2012	-	0.4	0.4
2013	-	0.4	0.4
2014	-	0.4	0.4
2015	-	0.4	0.4

Authorization

Section 832(b).

Description

A property and casualty insurance company's taxable income during a tax year is its underwriting income (i.e., premiums minus incurred losses and expenses) plus investment income and certain other income items minus allowable deductions. Additions to loss reserves, held to pay future claims, can also be deducted from taxable income under certain conditions. The Tax Reform Act of 1986 (P.L. 99-514) imposed the 15 percent pro-ration provision, as Congress held that using tax-exempt investments to finance additions to loss reserves was "inappropriate." Therefore, the allowable deduction for additions to loss reserves was reduced to 15 percent of (i) the insurer's tax-exempt interest, (ii) the deductible portion of dividends received (with special rules for dividends from affiliates), and (iii) the increase for the taxable year in the cash value of life insurance, endowment or annuity contracts.

Impact

The 15 percent pro-ration provision does not remove all of the benefit of holding tax-exempt investment to property and casualty insurance companies. At the typical corporate income tax rate of 35%, a property or casualty insurance company would in the simplest case pay an effective tax rate of $15\% \times 35\% = 5.25\%$ on income from tax exempt investments. The corporate alternative minimum tax and certain other tax provisions, however, may cap the advantage of holding higher proportions of tax-exempt securities

Rationale

This 15-percent pro-ration requirement was included in the Tax Reform Act of 1986 (P.L. 99-514) because Congress believed that "it is not appropriate to fund loss reserves on a fully deductible basis out of income which may be, in whole or in part, exempt from tax. The amount of the reserves that is deductible should be reduced by a portion of such tax-exempt income to reflect the fact that reserves are generally funded in part from tax-exempt interest or from wholly or partially deductible dividends." The Taxpayer Relief Act of 1997 (P.L. 105-34) expanded the 15-percent proration rule to apply to the inside buildup on certain insurance contracts.

In 1999, the Clinton Administration proposed increasing pro-ration for insurance companies from 15 percent to 25 percent. A Senate version of the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA, H.R. 2; P.L. 108-27) included a change the pro-ration treatment of life insurance subsidiaries of property and casualty firms, but that provision was omitted from the conference report. Pro-ration requirements for life insurance companies differ from those for property and casualty companies. The Senate JGTRRA proposal would have let property and casualty companies apply life insurance pro-ration rules to their life insurance reserves. This was allowed only if life insurance reserves (or reserves for noncancellable accident and health policies) comprised at least half of an insurer's total reserves.

A January 2005 report issued by the Joint Committee on Taxation recommended substituting the allocation rule of section 265(b) for 15% proration rule. The report argued that the section 265(b) pro-ration interest disallowance rule would more accurately reflect insurance companies' use of tax exempt or advantaged means of financing reserves. Hence, the report contends, that change would limit the potential of some insurance companies

to engage in tax arbitrage and increase federal revenue collections. The Obama Administration has proposed modifications of pro-ration rules for life insurance companies in its budget submissions.

Assessment

The 15-percent pro-ration provision allows property and casualty insurance companies to fund a substantial portion of their deductible reserves with tax-exempt or tax-deferred income. Life insurance companies, banks and brokerage firms, and other financial intermediaries, face more stringent proration rules that prevent or reduce the use of tax-exempt or tax-deferred investments to fund currently deductible reserves or deductible interest expense. Allowing property and casualty insurance companies an advantageous tax status, based on the ability to use tax-exempt income to reduce tax liabilities, may allow those insurers to attract economic resources from other sectors of the economy, thus creating economic inefficiencies.

A more stringent allocation rule could reduce insurance companies' demand for tax exempt bonds issued by state and local governments, which could raise financing costs for those governments. On the other hand, a more stringent allocation rule would allow Congress to target tax incentives for state and local governments more effectively.

Selected Bibliography

Ernst & Young, Federal Income Taxation of Property and Casualty Insurance Companies, Hoboken, New Jersey: John Wiley and Sons, 1996, pp. 85-86.

Testimony of Assistant Treasury Secretary Donald Lubick, in U.S. Congress, Senate Finance Committee, hearings, 106th Cong., 1st sess., April 27, 1999.

Nobles, Tsana. "Strategic Asset Allocation: Use of Tax-Exempt Securities," *Dwight Asset Management Company Market News and Analysis*, February 2008. Available at:

http://www.dwight.com/pubs/dwight_strategic_asset_allocation_0208.p df>.

- U.S. Congress, Joint Committee on Taxation. "Property and Casualty Insurance Company Taxation." In *General Explanation of the Revenue Provisions of the Tax Reform Act of 1986.* Joint Committee Print, 100th Congress, 1st session. Washington, DC: Government Printing Office, May 4, 1987, pp. 594-600.
- . Tax Reform Proposals: Taxation of Insurance Products and Companies. Joint Committee Print, 99th Congress, 1st session. Washington, DC: Government Printing Office, September 20, 1985.

- . Options to Improve Tax Compliance and Reform Tax Expenditures. Joint Committee Print JCS-02-05, 109th Congress, 1st session. Washington, DC: Government Printing Office, January 27, 2005.
- . H.R. Rep. No. 108-126, Jobs and Growth Tax Relief Reconciliation Act of 2003: Conference Report to Accompany H.R. 2, 108th Cong., 1st sess., May 22, 2003, pp. 155-156.
 - U.S. Internal Revenue Service, Revenue Proc. 2007-61.

Commerce and Housing: Housing

DEDUCTION FOR MORTGAGE INTEREST ON OWNER-OCCUPIED RESIDENCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	77.6		77.6
2012	83.7	-	83.7
2013	89.6	-	89.6
2014	99.8	-	99.8
2015	113.4	-	113.4

Authorization

Section 163(h).

Description

A taxpayer may claim an itemized deduction for "qualified residence interest," which includes interest paid on a mortgage secured by a principal residence and a second residence. The underlying mortgage loans can represent acquisition indebtedness of up to \$1 million, plus home equity indebtedness of up to \$100,000.

Impact

The deduction is considered a tax expenditure because homeowners are allowed to deduct their mortgage interest even though the implicit rental income from the home (comparable to the income they could earn if the home were rented to someone else) is not subject to tax.

Renters and the owners of rental property do not receive a comparable benefit. Renters may not deduct any portion of their rent under the federal income tax. Landlords may deduct mortgage interest paid for rental property, but they are subject to tax on the rental income.

For taxpayers who can itemize, the home mortgage interest deduction encourages home ownership by reducing the cost of owning compared with renting. It also encourages them to spend more on housing (measured before the income tax offset), and to borrow more than they would in the absence of the deduction.

The mortgage interest deduction primarily benefits middle- and upperincome households. Higher-income taxpayers are more likely to itemize deductions. As with any deduction, a dollar of mortgage interest deduction is worth more the higher the taxpayer's marginal tax rate.

Higher-income households also tend to have larger mortgage interest deductions because they can afford to spend more on housing and can qualify to borrow more. The home equity loan provision favors taxpayers who have been able to pay down their acquisition indebtedness and whose homes have appreciated in value.

Distribution by Income Class of Tax Expenditure for Mortgage Interest Deduction, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20 \$20 to \$30	0.1 0.3
\$30 to \$40	0.8
\$40 to \$50 \$50 to \$75 \$75 to \$100 \$100 to \$200 \$200 and over	1.6 8.3 10.6 43.1 35.3

Rationale

The income tax code instituted in 1913 contained a deduction for all interest paid, with no distinction between interest payments made for business, personal, living, or family expenses. There is no evidence in the legislative history that the interest deduction was intended to encourage

home ownership or to stimulate the housing industry at that time. In 1913 most interest payments represented business expenses. Home mortgages and other consumer borrowing were much less prevalent than in later years.

Before the Tax Reform Act of 1986 (TRA86), there were no restrictions on either the dollar amount of mortgage interest deduction or the number of homes on which the deduction could be claimed. The limits placed on the mortgage interest deduction in 1986 and 1987 were part of the effort to limit the deduction for personal interest.

Under the provisions of TRA86, for home mortgage loans settled on or after August 16, 1986, mortgage interest could be deducted only on a loan amount up to the purchase price of the home, plus any improvements, and on debt secured by the home but used for qualified medical and educational expense. This was an effort to restrict tax-deductible borrowing of home equity in excess of the original purchase price of the home. The interest deduction was also restricted to mortgage debt on a first and second home.

The Omnibus Budget Reconciliation Act of 1987 placed new dollar limits on mortgage debt incurred after October 13, 1987, upon which interest payments could be deducted. An upper limit of \$1 million (\$500,000 for married filing separately) was placed on the combined "acquisition indebtedness" for a principal and second residence. Acquisition indebtedness includes any debt incurred to buy, build, or substantially improve the residence(s). The ceiling on acquisition indebtedness for any residence is reduced down to zero as the mortgage balance is paid down, and can only be increased if the amount borrowed is used for improvements.

The TRA86 exception for qualified medical and educational expenses was replaced by the explicit provision for home equity indebtedness: in addition to interest on acquisition indebtedness, interest can be deducted on loan amounts up to \$100,000 (\$50,000 for married filing separately) for other debt secured by a principal or second residence, such as a home equity loan, line of credit, or second mortgage. The sum of the acquisition indebtedness and home equity debt cannot exceed the fair market value of the home(s). There is no restriction on the purposes for which home equity indebtedness can be used.

Assessment

Major justifications for the mortgage interest deduction have been the desire to encourage homeownership and to stimulate residential construction.

Homeownership is alleged to encourage neighborhood stability, promote civic responsibility, and improve the maintenance of residential buildings. Homeownership is also viewed as a mechanism to encourage families to save and invest in what for many will be their major financial asset.

A major criticism of the mortgage interest deduction has been its distribution of tax benefits in favor of higher-income taxpayers. It is unlikely that a housing subsidy program that gave far larger amounts to high income compared with low income households would be enacted if it were proposed as a direct expenditure program.

The preferential tax treatment of owner-occupied housing relative to other assets is also criticized for encouraging households to invest more in housing and less in other assets that might contribute more to increasing the nation's productivity and output.

Efforts to limit the deduction of some forms of interest more than others must address the ability of taxpayers to substitute one form of borrowing for another. For those who can make use of it, the home equity interest deduction can substitute for the deductions phased out by TRA86 for consumer interest and investment interest in excess of investment income. This alternative is not available to renters or to homeowners with little equity buildup.

Analysts have pointed out that the rate of homeownership in the United States is not significantly higher than in countries such as Canada that do not provide a mortgage interest deduction under their income tax. The value of the U.S. deduction may be at least partly capitalized into higher prices at the middle and upper end of the housing market.

Selected Bibliography

Bourassa, Steven C. and Grigsby, William G. "Income Tax Concessions for Owner-Occupied Housing," *Housing Policy Debate*, vol. 11, iss. 3, 2000, pp. 521-546.

Brady, Peter, Julie-Anne Cronin, and Houser. Scott. "Regional Differences in the Utilization of the Mortgage Interest Deduction," *Public Finance Review*, vol. 31, (July 2003), pp. 327-366.

Capozza, Dennis R., Richard K. Green, and Patric H. Hendershott. "Taxes, Mortgage Borrowing and Residential Land Prices," in *Economic Effects of Fundamental Tax Reform*, eds. Henry H. Aaron and William G. Gale. Washington, DC: Brookings Institution Press, 1996, pp. 171-210.

Cecchetti, Stephen G. and Peter Rupert. "Mortgage Interest Deductibility and Housing Prices," *Economic Commentary*. Federal Reserve Bank of Cleveland, February 1, 1996.

Chatterjee, Satyjit. "Taxes, Homeownership, and the Allocation of Residential Real Estate Risk," *Business Review*, Federal Reserve Bank of Philadelphia, September-October 1996, pp. 3-10.

Engen, Eric M. and William G. Gale. "Tax-Preferred Assets and Debt, and the Tax Reform Act of 1986: Some Implications for Fundamental Tax Reform," *National Tax Journal*, vol. 49, (September 1996), pp. 331-339.

Follain, James R. and David C. Ling. "The Federal Tax Subsidy to Housing and the Reduced Value of the Mortgage Interest Deduction," *National Tax Journal*, vol. 44, (June 1991), pp. 147-168.

Follain, James R. and Robert M. Dunsley. "The Demand for Mortgage Debt and the Income Tax," *Journal of Housing Research*, vol. 8, no. 2, 1997, pp. 155-191.

Gale, William G. Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," Tax Notes, v. 115, no. 12. June 18, 2007

Glaeser, Edward L. and Jesse M. Shapiro. "The Benefits of the Home Mortgage Interest Deduction," *NBER Working Paper Series 9284*, National Bureau of Economic Research, October 2002.

Green, Richard K. and Kerry D. Vandell. "Giving Households Credit: How Changes in the U.S. Tax Code Could Promote Homeownership," *Regional Science and Urban Economics*, vol. 29, no. 4, July 1999, pp. 419-444.

Gyourko, Joseph and Todd Sinai. "The Spatial Distribution of Housing-Related Ordinary Income Tax Benefits," *Real Estate Economics*, vol. 31, (Winter 2003), pp. 529-531.

Howard, Christopher. *The Hidden Welfare State: Tax Expenditures and Social Policy in the United States.* Princeton: Princeton Univ. Press, 1997.

Keightley, Mark. *The Mortgage Interest and Property Tax Deductions: Analysis and Options*, Library of Congress, Congressional Research Service Report R41596 (2011).

. The Mortgage Interest and Property Tax Deductions: Brief Overview with Revenue Estimates, Library of Congress, Congressional Research Service Report R41918 (2011).

Maki, Dean M. "Portfolio Shuffling and Tax Reform," *National Tax Journal*, vol. 49, (September 1996), pp. 317-329.

Nakagami, Yasuhiro and Alfred M. Pereira. "Budgetary and Efficiency Effects of Housing Taxation in the United States," *Journal of Urban Economics*, vol. 39, (January 1996), pp. 68-86.

Poterba, James and Todd Sinai. "Tax Expenditures for Owner-Occupied Housing: Deductions for Property Taxes and Mortgage Interest and The

Exclusion of Imputed Rental Income," *American Economic Review: Papers & Proceedings*, vol. 98, no. 2, 2008, pp. 84-89.

Rose, Clarence C. "The Investment Value of Home Ownership," *Journal of Financial Service Professionals*, vol. 60, (January 2006), pp. 57-66.

Rosen, Harvey S. "Housing Subsidies: Effects on Housing Decisions, Efficiency, and Equity." *Handbook of Public Economics, vol. I*, eds. Alan J. Auerbach and Martin Feldstein. The Netherlands, Elsevier Science Publishers B.V. (North-Holland), 1985, pp. 375-420.

Reschovsky, Andrew and Richard K. Green. Tax Credits and Tenure Choice, *Proceedings*, 91st Annual Conference on Taxation, 1998. Washington, DC: National Tax Association, 1999, pp. 401-410.

Sinai, Todd, and Joseph Gyourko. "The (Un)Changing Geographical Distribution of Housing Tax Benefits: 1980 to 2000," in *Tax Policy and the Economy, 2003 Conference Report*, ed. James Poterba. National Bureau of Economic Research, November 4, 2003.

Toder, Eric, Margery Austin Turner, Katherine Lim, and Liza Getsinger. *Reforming the Mortgage Interest Deduction*, Urban Institute, Washington, DC, April 2010.

U.S. Department of Treasury, Internal Revenue Service, Publication 936, *Home Mortgage Interest Deduction*.

Commerce and Housing: Housing

DEDUCTION FOR PROPERTY TAXES ON OWNER-OCCUPIED RESIDENCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	24.3	-	24.3
2012	15.1	-	15.1
2013	22.8		22.8
2014	27.1	-	27.1
2015	27.8	-	27.8

Authorization

Section 164.

Description

Taxpayers may claim an itemized deduction for property taxes paid on owner-occupied residences. Taxpayers that do not itemize and pay property taxes were permitted (in 2008 and 2009) to take a deduction in addition to the standard deduction of up to \$500 (\$250 for single filers). The additional standard provision expired after the 2009 tax year. For more on the additional property tax deduction, see the entry titled the "Increased Standard Deduction of Real Property Taxes" from the 2010 Tax Expenditure Compendium.

Impact

The deductibility of property taxes on owner-occupied residences provides a subsidy both to home ownership and to the financing of state and local governments. Like the deduction for home mortgage interest, the federal deduction for real property (real estate) taxes reduces the cost of home ownership relative to renting. Renters may not deduct any portion of their rent under the federal income tax. Landlords may deduct the property tax they pay on a rental property but are taxed on the rental income.

Homeowners may deduct the property taxes and are not subject to income tax on the imputed rental value of the dwelling. For itemizing homeowners, the deduction lowers the net price of state and local public services financed by the property tax and raises their after-federal-tax income.

Like all personal deductions, the property tax deduction provides uneven tax savings per dollar of deduction as taxable income rises. The tax savings are higher for those with greater taxable income and higher marginal tax rates, and those homeowners who do not itemize their deductions receive no direct tax savings on property taxes paid.

Higher-income groups are more likely to itemize property taxes and to receive larger average benefits per itemizing return. Consequently, the tax expenditure benefits of the property tax deduction are concentrated in the upper-income groups. The tax expenditure is concentrated in the income groups over \$100,000 of adjusted gross income. These taxpayers receive 73.2% of the tax expenditure in 2010.

Distribution by Income Class of Tax Expenditure for Property Tax Deductions, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	0.1
\$20 to \$30	0.3
\$30 to \$40	1.0
\$40 to \$50	2.0
\$50 to \$75	9.9
\$75 to \$100	13.5
\$100 to \$200	51.7
\$200 and over	21.5

Rationale

Under the original 1913 federal income tax law all federal, state, and local taxes were deductible, except those assessed against local benefits (for improvements which tend to increase the value of the property), for

individuals as well as businesses. A major rationale was that tax payments reduce disposable income in a mandatory way and thus should be deducted when determining a taxpayer's ability to pay the federal income tax.

Over the years, the Congress has gradually eliminated the deductibility of certain taxes under the individual income tax, unless they are business-related. Deductions were eliminated for federal income taxes in 1917, for estate and gift taxes in 1934, for excise and import taxes in 1943, for state and local excise taxes on cigarettes and alcohol and fees such as drivers' and motor vehicle licenses in 1964, for excise taxes on gasoline and other motor fuels in 1978, and for sales taxes in 1986.

In 2004, a sales tax deductibility option was reinstated temporarily by the "American Jobs Creation Act of 2004," (P.L. 108-357). In contrast to pre-1986 law, state sales and use taxes can only be deducted *in lieu of* state income taxes, not in addition to. Taxpayers who itemize and live in states without a personal income tax benefitted the most from the new law. The sales tax deductibility option has been extended several times, most recently by P.L. 111-312, the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010.

State and local taxes were among several deductions subject to the phaseout on itemized deductions for taxpayers whose AGI exceeds the applicable threshold amount — \$166,800 for single taxpayers, \$250,200 for joint filers in 2009, indexed for inflation. The deduction was reduced by the lesser of three percent of the excess over the threshold amount or 80% of allowable deductions. The phaseout began to gradually phase out itself beginning in the 2006 tax year. For 2008 and 2009, only one-third of reduction applied and is completely eliminated beginning with the 2010 tax year. P.L. 111-312 extended the elimination of the phase out for two years through 2012. Under current law, the phase out is applicable for 2013 and Urban-Brookings Tax Policy Center estimates that it would begin at AGI of \$174,450 both joint and single filers.

Assessment

Proponents argue that the deduction for state and local taxes is a way of promoting fiscal federalism by helping state and local governments to raise revenues from their own taxpayers. Itemizers receive an offset for their deductible State and local taxes in the form of lower federal income taxes. Deductibility thus helps to equalize total federal-state-local tax burdens across the country: itemizers in high-tax state and local jurisdictions pay

somewhat lower federal taxes as a result of their higher deductions, and vice versa.

By allowing property taxes to be deducted in the same way as state and local income, sales, and personal property taxes, the federal Government avoids interfering in state and local decisions about which of these taxes to rely on. The property tax is particularly important as a source of revenue for local governments and school districts.

Nevertheless, the property tax deduction is not an economically efficient way to provide federal aid to state and local governments in general, or to target aid on particular needs, compared with direct aid. The deduction works indirectly to increase taxpayers' willingness to support higher state and local taxes by reducing the net price of those taxes and increasing their income after federal taxes.

The same tax expenditure subsidy is available to property taxpayers, regardless of whether the money is spent on quasi-private benefits enjoyed by the taxpayers or redistributive public services, or whether they live in exclusive high-income jurisdictions or heterogeneous cities encompassing a low-income population. The property-tax-limitation movements of the 1970s and 1980s, and state and local governments' increased reliance on non-deductible sales and excise taxes and user fees during the 1980s and 1990s, suggest that other forces can outweigh the advantage of the property tax deduction.

Two separate lines of argument are offered by critics to support the case that the deduction for real property taxes should be restricted. One is that a large portion of local property taxes may be paying for services and facilities that are essentially private benefits being provided through the public sector. Similar services often are financed by non-deductible fees and user charges paid to local government authorities or to private community associations (e.g., for water and sewer services or trash removal).

Another argument is that if imputed income from owner-occupied housing is not subject to tax, then associated expenses, such as mortgage interest and property taxes, should not be deductible.

Like the mortgage interest deduction, the value of the property tax deduction may be capitalized to some degree into higher prices for the type of housing bought by taxpayers who can itemize. Consequently, restricting the deduction for property taxes could lower the price of housing purchased by middle- and upper-income taxpayers, at least in the short run.

Selected Bibliography

Aaron, Henry. Who Pays the Property Tax? Washington, DC: The Brookings Institution, 1975.

Birch, John W., Mark A. Sunderman, and Brent C. Smith. "Vertical Inequity in Property Taxation: A Neighborhood Based Analysis," *Journal of Real Estate Finance and Economics*, v. 29, n. 1, July 2004, pp. 71-78.

Carroll, Robert J., and John Yinger. "Is the Property Tax a Benefit Tax? The Case of Rental Housing," *National Tax Journal*, v. 47, no. 2, June 1994, pp. 295-316.

Kenyon, Daphne A. "Federal Income Tax Deductibility of State and Local Taxes," *Intergovernmental Perspective*, Fall 1984, v. 10, no. 4, pp. 19-22.

Gale, Willaim G., Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," *Tax Notes*, June 18, 2007, pp.1171-1189.

Government Accountability Office, Report to the Joint Committee on Taxation, Pub. No. GAO-09-521, "Real Estate Tax Deduction: Taxpayers Face Challenges in Determining What Qualifies; Better Information Could Improve Compliance," May 2009.

Gravelle, Jennifer. "Who Pays Property Taxes? A Look at the Effects of Property Taxes Across States," *State Tax Notes*, December 24, 2007, pp. 887-890.

Maguire, Steven. Federal Deductibility of State and Local Taxes. Library of Congress, Congressional Research Service Report RL32781. Washington, D.C., Spt. 20, 2012.

Netzer, Dick. "Local Government Finance and the Economics of Property Tax Exemption," *State Tax Notes*, June 23, 2003, pp. 1053-1069.

Poterba, James, and Todd Sinai. "Tax Expenditures for Owner-Occupied Housing: Deductions for Property Taxes and Mortgage Interest and the Exclusion of Imputed Rental Income," *American Economic Review*, v. 98, no. 2, May 2008, pp. 84-89.

Rosen, Harvey S. "Housing Decisions and the U.S. Income Tax: An Economic Analysis," *Journal of Public Economics*, v. 11, no. 1. February 1979, pp. 1-23.

Tannenwald, Robert. "The Subsidy from State and Local Tax Deductibility: Trends, Methodological Issues and its Value After Federal Tax Reform," Federal Reserve Bank of Boston, Working Paper 97/08, December 1997.

U.S. Congress, Senate Committee on Governmental Affairs, Subcommittee on Intergovernmental Relations. *Limiting State-Local Tax*

Deductibility in Exchange for Increased General Revenue Sharing: An Analysis of the Economic Effects, 98th Congress, 1st session, Committee Print S. Prt. 98-77, August 1983. A condensed version was published in Nonna A. Noto and Dennis Zimmerman, "Limiting State-Local Tax Deductibility: Effects Among the States," National Tax Journal, v. 37, no. 4, December 1984, pp. 539-549.

U.S. Department of the Treasury, Office of State and Local Finance. Federal-State-Local Fiscal Relations, Report to the President and the Congress. Washington, DC: U.S. Government Printing Office, September 1985, pp. 251-283. Also Technical Papers, September 1986, v. 1, pp. 349-552.

Zodrow, George R. "Property Tax Incidence and the Mix of State and Local Finance of Local Expenditures." *State Tax Notes*, May 19, 2008, pp. 567-580.

Commerce and Housing: Housing

DEDUCTION FOR PREMIUMS FOR QUALIFIED MORTGAGE INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	-	0.2
2012	(1)	-	$\binom{1}{2}$
2013	-	-	-
2014	-	-	-
2015	-	-	-

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 163.

Description

Qualified mortgage insurance premiums paid with respect to a qualified residence can be treated as residence interest and is therefore tax deductible. The deduction is phased out for married taxpayers with adjusted gross income from \$100,000 to \$110,000, and is phased out for single taxpayers with adjusted gross income from \$50,000 to \$55,000. For the purposes of this deduction, qualified mortgage insurance means mortgage insurance obtained from the Department of Veterans Affairs (VA), the Federal Housing Authority (FHA), the Rural Housing Administration (RHA), and private mortgage insurance as defined by the Homeowners Protection Act of 1988.

Impact

For a number of reasons, the mortgage insurance premium deduction primarily benefits young middle-income households. First, most lenders require mortgage insurance if a borrower's down payment is less than 20 percent. Young households are more likely to lack the wealth needed to meet this requirement and will therefore purchase mortgage insurance. Second, the deduction is only beneficial to households that itemize. Lower-income households do not itemize as they find the standard deduction to be more valuable. Finally, while higher-income households are likely to itemize, income eligibility limits exclude higher-income households from benefitting from this additional deduction.

As with any deduction, a dollar of mortgage insurance premium deduction is worth more the higher the taxpayer's marginal tax rate. Thus, within the group of middle-income households that are eligible for this deduction, higher income earners will find it more beneficial.

Rationale

The deduction was added, for 2007, by the Tax Relief and Health Care Act of 2006 (P.L. 109-432) and extended through 2010 by the Mortgage Forgiveness Debt Relief Act of 2007 (P.L. 110-142) and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312). This provision may or may not be extended. Proponents believe that allowing for the deduction of mortgage insurance premiums fosters home ownership. Most lenders will demand that a household purchase mortgage insurance if a down payment of less than 20 percent is made. By reducing the cost associated with the purchase of such insurance. households—particularly younger middle-income more households unable to meet the 20 percent down payment criteria—may be encouraged to own a home.

Assessment

A justification for the mortgage insurance premium deduction has been the desire to encourage homeownership. Homeownership is believed to encourage neighborhood stability, promote civic responsibility, and improve the maintenance of residential buildings. Homeownership is also viewed as a mechanism to encourage families to save and invest in what for many will be their major asset.

Economists have noted that owner-occupied housing in the United States is already heavily subsidized. By increasing the subsidy, resources are likely further directed away from other uses in the economy, such as investment in productive physical capital.

Selected Bibliography

Bickley, James M. Certain Temporary Tax Provisions Scheduled to Expire in 2009 ("Extenders"). Library of Congress, Congressional Research Service Report RL32367. September 17, 2010.

Gale, William G., Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," *Tax Notes*, v. 115, no. 12. June 18, 2007

Jackson, Pamela. Fundamental Tax Reform: Options for the Mortgage Interest Deduction. Library of Congress, Congressional Research Service Report RL33025. January 8, 2008

Poterba, James, and Todd Sinai. "Tax Expenditures for Owner-Occupied Housing: Deductions for Property Taxes and Mortgage Interest and The Exclusion of Imputed Rental Income," *American Economic Review: Papers & Proceedings*, v. 98, no. 2, 2008, pp. 84-89.

Rosen, Harvey S. "Housing Subsidies: Effects on Housing Decisions, Efficiency, and Equity," *Handbook of Public Economics, vol. I*, eds. Alan J. Auerbach and Martin Feldstein. The Netherlands, Elsevier Science Publishers B.V. (North-Holland), 1985, pp. 375-420.

Commerce and Housing: Housing

EXCLUSION OF CAPITAL GAINS ON SALES OF PRINCIPAL RESIDENCES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	18.4	-	18.4
2012	22.9	-	22.9
2013	26.1	-	26.1
2014	27.2	-	27.2
2015	28.5	-	28.5

Authorization

Section 121.

Description

A taxpayer may exclude from federal income tax up to \$250,000 of capital gain (\$500,000 in the case of married taxpayers filing joint returns) from the sale or exchange of his or her principal residence. To qualify, the taxpayer must have owned and occupied the residence for at least two of the previous five years. The exclusion is limited to one sale every two years. Special rules apply in the case of sales necessitated by changes in employment, health, and other circumstances.

Impact

Excluding the capital gains on the sale of principal residences from tax primarily benefits middle- and upper-income taxpayers. At the same time, however, this provision avoids putting an additional tax burden on taxpayers, regardless of their income levels, who have to sell their homes because of changes in family status, employment, or health. It also provides tax benefits to elderly taxpayers who sell their homes and move to less expensive

housing during their retirement years. This provision simplifies income tax administration and record keeping.

Rationale

Capital gains arising from the sale of a taxpayer's principal residence have long received preferential tax treatment. The Revenue Act of 1951 introduced the concept of deferring the tax on the capital gain from the sale of a principal residence if the proceeds of the sale were used to buy another residence of equal or greater value. This deferral principal was supplemented in 1964 by the introduction of the tax provision that allowed elderly taxpayers a one-time exclusion from tax for some of the capital gain derived from the sale of their principal residence. Over time, the one-time exclusion provision was modified such that all taxpayers aged 55 years and older were allowed a one-time exclusion for up to \$125,000 gain from the sale of their principal residence.

By 1997, Congress had concluded that these two provisions, tax-free rollovers and the one-time exclusion of \$125,000 in gain for elderly taxpayers, had created significant complexities for the average taxpayer with regard to the sale of their principal residence. To comply with tax regulations, taxpayers had to keep detailed records of the financial expenditures associated with their homeownership. Taxpayers had to differentiate between those expenditures that affected the basis of the property and those that were merely for maintenance or repairs. In many instances these records had to be kept for decades.

In addition to record keeping problems, Congress believed that the prior law rules promoted an inefficient use of taxpayers' resources. Because deferral of tax required the purchase of a new residence of equal or greater value, prior law may have encouraged taxpayers to purchase more expensive homes than they otherwise would have.

Finally, Congress believed that prior law may have discouraged some elderly taxpayers from selling their homes to avoid possible tax consequences. Elderly taxpayers who had already used their one-time exclusion and those who might have realized a gain in excess of \$125,000, may have held on to their homes longer than they otherwise would have.

As a result of these concerns, Congress repealed the rollover provisions and the one-time exclusion of \$125,000 of gain in the Taxpayer Relief Act of 1997. In their place, Congress enacted the current tax rules which allow a

taxpayer to exclude from federal income tax up to \$250,000 of capital gain (\$500,000 in the case of married taxpayers filing joint returns) from the sale or exchange of his or her principal residence.

Assessment

This exclusion from income taxation gives homeownership a competitive advantage over other types of investments, since the capital gains from investments in other assets are generally taxed when the assets are sold. Moreover, when combined with other provisions in the tax code such as the deductibility of home mortgage interest, homeownership is an especially attractive investment. As a result, savings are diverted out of other forms of investment and into housing.

Viewed from another perspective, many see the exclusion on the sale of a principal residence as justifiable because the tax law does not allow the deduction of personal capital losses, because much of the profit from the sale of a personal residence can represent only inflationary gains, and because the purchase of a principal residence is less of a profit-motivated decision than other types of investments. Taxing the gain on the sale of a principal residence might also interfere with labor mobility.

Selected Bibliography

Burman, Leonard E., Sally Wallace, and David Weiner. "How Capital Gains Taxes Distort Homeowners' Decisions." Proceedings of the 89th Annual Conference, 1996, Washington, DC: National Tax Association, 1997.

Cunningham, Christopher R., and Gary V. Engelhardt. "Housing Capital-Gain Taxation and Homeowner Mobility: Evidence from the Taxpayer Relief Act of 1997," *Journal of Urban Economics*, v. 63. no. 3, May 2008, pp. 803-815.

Gravelle, Jane, and Pamela J. Jackson. *The Exclusion of Capital Gains for Owner Occupied Housing*. Library of Congress, Congressional Research Service Report RL32978. Washington DC: 2007.

Esenwein, Gregg A. *Individual Capital Gains Income: Legislative History*. Library of Congress, Congressional Research Service Report 98-473. Washington DC: 2007.

Fox, John O. *If Americans Really Understood the Income Tax*. Boulder, CO: Westview Press, 2001, pp. 177-200.

- U.S. Department of the Treasury, Internal Revenue Service. *Selling Your Home*, Publication 523, 2009.
- U.S. Congress, Joint Committee on Taxation. Description of Revenue Provisions Contained in the President's Fiscal Year 2001 Budget Proposal. March 6, 2000.

- . General Explanation of Tax Legislation Enacted in 1997. December 17, 1997.
- U.S. Congress, Congressional Budget Office. Perspectives on the Ownership of Capital Assets and the Realization of Capital Gains. May 1997.

Commerce and Housing: Housing

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR OWNER-OCCUPIED HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.8	0.3	1.1
2012	0.8	0.3	1.1
2013	1.0	0.3	1.3
2014	1.1	0.4	1.5
2015	1.1	0.4	1.5

Authorization

Sections 103, 141, 143, and 146 of the Internal Revenue Code of 1986.

Description

Interest income on sand local bonds issued to provide mortgages at below-market interest rates on owner-occupied principal residences of first-time homebuyers is tax exempt. The issuer of mortgage bonds typically uses bond proceeds to purchase mortgages made by a private lender. The homeowners make their monthly payments to the private lender, which passes them through as payments to the bondholders.

These mortgage revenue bonds (MRBs) are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Numerous limitations have been imposed on state and local MRB programs, among them restrictions on the purchase prices of the houses that

can be financed, on the income of the homebuyers, and on the portion of the bond proceeds that must be expended for mortgages in targeted (lower income) areas.

A portion of capital gains on an MRB-financed home sold within ten years must be rebated to the Treasury. Housing agencies may trade in bond authority for authority to issue equivalent amounts of mortgage credit certificates (MCCs). MCCs take the form of nonrefundable tax credits for interest paid on qualifying home mortgages.

MRBs are subject to the private-activity bond annual volume cap that was equal to the greater of \$95 per state resident or \$284.56 million in 2012. The cap has been adjusted for inflation since 2003. Housing agencies must compete for cap allocations with bond proposals for all other private-activities subject to the volume cap.

In response to the housing market crisis in 2008, Congress included two provisions in the Housing and Economic Recovery Act of 2008 (HERA; P.L. 110-289) that were intended to assist the housing sector. First, HERA provided that interest on qualified private activity bonds issued for (1) qualified residential rental projects, (2) qualified mortgage bonds, and (3) qualified veterans' mortgage bonds, would not be subject to the AMT. In addition, HERA also created an additional \$11 billion of volume cap space for bonds issued for qualified mortgage bonds and qualified bonds for residential rental projects. The cap space was designated for 2008 but could have been carried forward through 2010.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer mortgages on owner-occupied housing at reduced mortgage interest rates. In 2011, roughly \$5.6 billion of MRBs and \$1.5 billion of MCCs were issued in the U.S.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and homeowners, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

The first MRBs were issued without any federal restrictions during the high-interest-rate period of the late 1970s. State and local officials expected reduced mortgage interest rates arising from the tax exemption to increase the incidence of homeownership. The Mortgage Subsidy Bond Tax Act of 1980 imposed several targeting requirements, most importantly restricting the use of MRBs to lower-income first-time purchasers. The annual volume of bonds issued by governmental units within a state was capped, and the amount of arbitrage profits (the difference between the interest rate on the bonds and the higher mortgage rate charged to the home purchaser) was limited to one percentage point.

Depending upon the state of the housing market, targeting restrictions have been relaxed and tightened over the decade of the 1980s. MRBs were included under the unified volume cap on private-activity bonds by the Tax Reform Act of 1986.

MRBs had long been an "expiring tax provision" with a sunset date. MRBs first were scheduled to sunset on December 31, 1983, by the Mortgage Subsidy Bond Tax Act of 1980. Additional sunset dates have been adopted five times when Congress has decided to extend MRB eligibility for a temporary period. The Omnibus Budget Reconciliation Act of 1993 made MRBs a permanent provision.

The Tax Increase Prevention and Reconciliation Act required that payors of state and municipal bond tax-exempt interest begin to report those payments to the Internal Revenue Service after December 31, 2005. The manner of reporting is similar to reporting requirements for interest paid on taxable obligations. Additionally in the 109th Congress, the program was expanded temporarily to assist in the rebuilding efforts after the Gulf Region hurricanes of the Fall of 2005.

In the 110th Congress, the Housing and Economic Recovery Act of 2008, P.L. 110-289 enacted several permanent and temporary changes to the program. First, the interest on MRBs became permanently exempt from the alternative minimum tax. Second, eligible MRBs use was temporarily expanded to include the refinancing of qualified subprime mortgages. Third, states' volume caps were increased for 2008. Fourth, changes enacted in the 109th Congress to assist victims of the Gulf Region hurricanes were extended. Also in the 110th Congress, the Emergency Economic Stabilization

Act of 2008, P.L. 110-343 waived certain program requirements, enabling disaster victims to benefit from MRB financing.

Assessment

Income, tenure status, and house-price-targeting provisions imposed on MRBs make them more likely to achieve the goal of increased homeownership than many other housing tax subsidies that make no targeting effort, such as is the case for the mortgage-interest deduction. Nonetheless, it has been suggested that most of the mortgage revenue bond subsidy goes to families that would have been homeowners even if the subsidy were not available.

Even if a case can be made for this federal subsidy for homeownership, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, MRBs increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Cooperstein, Richard L. "Economic Policy Analysis of Mortgage Revenue Bonds." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

— . "The Economics of Mortgage Revenue Bonds: A Still Small Voice." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

Council of Development Finance Agencies, "Original Research: CDFA 2011 National Volume Cap Report," July 2012.

Hellerstein, Walter, and Eugene W. Haper, "Discriminatory State Taxation of Private Activity Bonds After Davis," State Tax Notes, April 27, 2009, p. 295.

Keightley, Mark P. and Erika Lunder. *Mortgage Revenue Bonds: Analysis of Sections 3021 and 3022 of the Housing and Economic Recovery Act of 2008.* Library of Congress, Congressional Research Service Report RS22841.

MacRae, Duncan, David Rosenbaum, and John Tuccillo. *Mortgage Revenue Bonds and Metropolitan Housing Markets*. Washington, DC: The Urban Institute, May 1980.

Maguire, Steven. *Private Activity Bonds: An Introduction.* Library of Congress, Congressional Research Service Report RL31457, Sept. 10, 2010.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638, June 19, 2012.

Temple, Judy. "Limitations on State and Local Government Borrowing for Private Purposes," *National Tax Journal*, v. 46, March 1993, pp. 41-52.

U.S. General Accounting Office. Home Ownership: Mortgage Bonds Are Costly and Provide Little Assistance to Those in Need. GAO/RCED-88-111. 1988.

Whitaker, Stephen, "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Wrightson, Margaret T. Who Benefits from Single-Family Housing Bonds? History, Development and Current Experience of State-Administered Mortgage Revenue Bond Programs. Washington, DC: Georgetown University, Public Policy Program, April 1988.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington, DC: The Urban Institute Press, 1991.

Commerce and Housing: Housing

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR RENTAL HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.6	0.3	0.9
2012	0.7	0.3	1.0
2013	0.8	0.3	1.1
2014	0.8	0.3	1.1
2015	0.9	0.3	1.2

Authorization

Sections 103, 141, 142, and 146.

Description

Interest income on state and local bonds used to finance the construction of multifamily residential rental housing units for low- and moderate-income families is tax exempt. These rental housing bonds are classified as private-activity bonds rather than as governmental bonds because a substantial portion of their benefits accrues to individuals or business, rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

These residential rental housing bonds are subject to the state private-activity bond annual volume cap that was equal to the greater of \$90 per state resident or \$273.775 million in 2010. The cap has been adjusted for inflation since 2003. Several additional requirements have been imposed on these projects, primarily on the share of the rental units that must be occupied by

low-income families and the length of time over which the income restriction must be satisfied.

In response to the housing market crisis in 2008, Congress included two provisions in the Housing and Economic Recovery Act of 2008 (HERA; P.L. 110-289) that are intended to assist the housing sector. First, HERA provided that interest on qualified private activity bonds issued for (1) qualified residential rental projects, (2) qualified mortgage bonds, and (3) qualified veterans' mortgage bonds, would not be subject to the AMT. In addition, HERA also created an additional \$11 billion of volume cap space for bonds issued for qualified mortgage bonds and qualified bonds for residential rental projects. The cap space was designated for 2008 but could have been carried forward through 2010.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer residential rental housing units at reduced rates. Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and renters, and for estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Before 1968, State and local governments were allowed to issue taxexempt bonds to finance multifamily rental housing without restriction. The Revenue and Expenditure Control Act of 1968 (RECA 1968) imposed tests that restricted the issuance of these bonds. However, the Act also provided a specific exception which allowed unrestricted issuance for multifamily rental housing.

Most states issue these bonds in conjunction with the Leased Housing Program under Section 8 of the United States Housing Act of 1937. The Tax Reform Act of 1986 restricted eligibility for tax-exempt financing to projects satisfying one of two income-targeting requirements: 40 percent or more of the units must be occupied by tenants whose incomes are 60 percent or less of the area median gross income, or 20 percent or more of the units are occupied by tenants whose incomes are 50 percent or less of the area median

gross income. The Tax Reform Act of 1986 subjected these bonds to the state volume cap on private-activity bonds.

The Tax Increase Prevention and Reconciliation Act required that payors of state and municipal bond tax-exempt interest begin to report those payments to the Internal Revenue Service after December 31, 2005. The manner of reporting is similar to reporting requirements for interest paid on taxable obligations. Additionally in the 109th Congress, the program was expanded temporarily to assist in the rebuilding efforts after the Gulf Region hurricanes of the Fall of 2005.

Most recently, the Housing and Economic Recovery Act of 2008, P.L. 110-289, coordinated certain rules pertaining to the low-income housing tax credit program and the tax exempt rental program when a project received both sources of financing. In addition, a hold-harmless policy for computing area median income limits was enacted to ensure that the annual income limits in a given year do not fall below the limits in the previous year.

Assessment

This exception was provided because it was believed that subsidized housing for low- and moderate-income families provided benefits to the Nation, and provided equitable treatment for families unable to take advantage of the substantial tax incentives available to those able to invest in owner-occupied housing.

Even if a case can be made for a federal subsidy for multifamily rental housing due to underinvestment at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for multifamily rental housing increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Hellerstein, Walter and Eugene W. Haper, "Discriminatory State Taxation of Private Activity Bonds After Davis," State Tax Notes, April 27, 2009, p. 295.

Maguire, Steven. *Private Activity Bonds: An Introduction.* Library of Congress, Congressional Research Service Report RL31457.

- . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.
- U.S. Government Accountability Office. *Information on Selected Capital Facilities Related to the Essential Governmental Function Test.* GAO-06-1082, 2006.
- U.S. Congress, Congressional Budget Office. *Tax-Exempt Bonds for Multi-Family Residential Rental Property*, 99th Congress, 1st session. June 21, 1985.
- , Joint Committee on Taxation. General Explanation of the Revenue Provisions of the Tax Reform Act of 1986. May 4, 1987: 1171-1175.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington, DC: The Urban Institute Press, 1991.

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DEPRECIATION OF RENTAL HOUSING IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	5.1	0.6	5.7
2012	4.7	0.5	5.2
2013	4.6	0.5	5.1
2014	4.0	0.4	4.4
2015	4.0	0.4	4.4

Authorization

Sections 167 and 168.

Description

Taxpayers are allowed to deduct the costs of acquiring depreciable assets (assets that wear out or become obsolete over a period of years) as depreciation deductions. The tax code currently allows new rental housing to be written off over 27.5 years, using a "straight line" method where equal amounts are deducted in each period. This rule was adopted in 1986. There is also a prescribed 40-year write-off period for rental housing under the alternative minimum tax (also based on a straight-line method).

The tax expenditure measures the revenue loss from current depreciation deductions in excess of the deductions that would have been allowed under this longer 40-year period. The current revenue effects also reflect different write-off methods and lives prior to the 1986 revisions, since many buildings pre-dating that time are still being depreciated.

Prior to 1981, taxpayers were generally offered the choice of using the straight-line method or accelerated methods of depreciation, such as double-

declining balance and sum-of-years digits, in which greater amounts are deducted in the early years. (Used buildings with a life of twenty years or more were restricted to 125-percent declining balance methods.) The period of time over which deductions were taken varied with the taxpayer's circumstances.

Beginning in 1981, the tax law prescribed specific write-offs which amounted to accelerated depreciation over periods varying from 15 to 19 years. Since 1986, all depreciation on residential buildings has been on a straight-line basis over 27.5 years.

Example: Suppose a building with a basis of \$10,000 was subject to depreciation over 27.5 years. Depreciation allowances would be constant at $1/27.5 \times 10,000 = 364 . For a 40-year life the write-off would be \$250 per year. The tax expenditure in the first year would be measured as the difference between the tax savings of deducting \$364 or \$250, or \$114.

Impact

Given that depreciation methods faster than straight-line allow for larger deductions in the early years of the asset's life and smaller depreciation deductions in the later years, and because shorter useful lives allow quicker recovery, accelerated depreciation results in a deferral of tax liability.

It is a tax expenditure to the extent it is faster than economic (*i.e.*, actual) depreciation, and evidence indicates that the economic decline rate for residential buildings is much slower than that reflected in tax depreciation methods.

The direct benefits of accelerated depreciation accrue to owners of rental housing. Benefits to capital income tend to concentrate in the higher-income classes (see discussion in the Introduction).

Rationale

Prior to 1954, depreciation policy had developed through administrative practices and rulings. The straight-line method was favored by IRS and generally used. Tax lives were recommended for assets through "Bulletin F," but taxpayers were also able to use a facts-and-circumstances justification.

A ruling issued in 1946 authorized the use of the 150-percent declining balance method. Authorization for it and other accelerated depreciation

methods first appeared in legislation in 1954 when the double declining balance and other methods were enacted. The discussion at that time focused primarily on whether the value of machinery and equipment declined faster in their earlier years. When the accelerated methods were adopted, however, real property was included as well.

By the 1960s, most commentators agreed that accelerated depreciation resulted in excessive allowances for buildings. The first restriction on depreciation was to curtail the benefits that arose from combining accelerated depreciation with lower capital gains taxes when the building was sold. That is, while taking large deductions reduced the basis of the asset for measuring capital gains, these gains were taxed at the lower capital gains rate rather than the ordinary tax rate.

In 1964, 1969, and 1976 various provisions to "recapture" accelerated depreciation as ordinary income in varying amounts when a building was sold were enacted.

In 1969, depreciation on used rental housing was restricted to 125 percent declining balance depreciation. Low-income housing was exempt from these restrictions.

In the Economic Recovery Tax Act of 1981 (P.L. 94-34), residential buildings were assigned specific write-off periods that were roughly equivalent to 175-percent declining balance methods (200 percent for low-income housing) over a 15-year period under the Accelerated Cost Recovery System (ACRS).

These changes were intended as a general stimulus to investment. Taxpayers could elect to use the straight-line method over 15 years, 35 years, or 45 years. The Deficit Reduction Act of 1984 (P.L. 98-369) increased the 15-year life to 18 years; in 1985, it was increased to 19 years. The recapture provisions would not apply if straight-line methods were originally chosen. The acceleration of depreciation that results from using the shorter recovery period under ACRS was not subject to recapture as accelerated depreciation.

The current treatment was adopted as part of the Tax Reform Act of 1986 (P.L. 99-514), which lowered tax rates and broadened the base of the income tax.

Assessment

Evidence suggests that the rate of economic decline of residential structures is much slower than the rates allowed under current law, and this provision causes a lower effective tax rate on such investments than would otherwise be the case. This treatment in turn tends to increase investment in rental housing relative to other assets, although there is considerable debate about how responsive these investments are to tax subsidies.

At the same time, the more rapid depreciation roughly offsets the understatement of depreciation due to the use of historical cost-basis depreciation, assuming inflation is at a rate of approximately two percent. Moreover, many other assets are eligible for accelerated depreciation as well, and the allocation of capital depends on relative treatment.

Much of the previous concern about the role of accelerated depreciation in encouraging tax shelters in rental housing has faded because the current depreciation provisions are less rapid than those previously in place, and because there is a restriction on the deduction of passive losses. (Restrictions, however, were eased somewhat in 1993.)

Selected Bibliography

Auerbach, Alan, and Kevin Hassett. "Investment, Tax Policy, and the Tax Reform Act of 1986," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986*, ed. Joel Slemrod. Cambridge, Mass.: MIT Press, 1990, pp. 13-49.

Board of Governors of the Federal Reserve System. *Public Policy and Capital Formation*. April 1981.

Brannon, Gerard M. "The Effects of Tax Incentives for Business Investment: A Survey of the Economic Evidence," *The Economics of Federal Subsidy Programs, Part 3: Tax Subsidies*, U.S. Congress, Joint Economic Committee, July 15, 1972, pp. 245-268.

Brazell, David W. and James B. Mackie III. "Depreciation Lives and Methods: Current Issues in the U.S. Capital Cost Recovery System," *National Tax Journal*, v. 53, September 2000, pp. 531-562.

Break, George F. "The Incidence and Economic Effects of Taxation," *The Economics of Public Finance*. Washington, DC: Brookings Institution, 1974.

Bruesseman, William B., Jeffrey D. Fisher and Jerrold J. Stern. "Rental Housing and the Economic Recovery Tax Act of 1981," *Public Finance Quarterly*, v. 10, April 1982, pp. 222-241.

Burman, Leonard E., Thomas S. Neubig, and D. Gordon Wilson. "The Use and Abuse of Rental Project Models," *Compendium of Tax Research*

1987, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 307-349.

DeLeeuw, Frank, and Larry Ozanne. "Housing," In *How Taxes Affect Economic Behavior*, eds. Henry J. Aaron and Joseph A. Pechman. Washington, DC: The Brookings Institution, 1981, pp. 283-326.

Deloitte and Touche. Analysis of the Economic Depreciation of Structure, Washington, DC: June 2000.

Feldstein, Martin. "Adjusting Depreciation in an Inflationary Economy: Indexing Versus Acceleration." *National Tax Journal*, v. 34, March 1981, pp. 29-43.

Follain, James R., Patric H. Hendershott, and David C. Ling. "Real Estate Markets Since 1980: What Role Have Tax Changes Played?", *National Tax Journal*, v. 45, September 1992, pp. 253-266.

Fromm, Gary, ed. *Tax Incentives and Capital Spending*. Washington, DC: The Brookings Institution, 1971.

Fullerton, Don, Robert Gillette, and James Mackie. "Investment Incentives Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 131-172.

Fullerton, Don, Yolanda K. Henderson, and James Mackie. "Investment Allocation and Growth Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 173-202.

Gravelle, Jane G. "Differential Taxation of Capital Income: Another Look at the Tax Reform Act of 1986," *National Tax Journal*, v. 63, December 1989, pp. 441-464.

- . Depreciation and the Tax Treatment of Real Estate. Library of Congress, Congressional Research Service Report RL30163. Washington, DC: October 25, 2000.
- . *Economic Effects of Taxing Capital Income*, Chapters 3 and 5. Cambridge, MA: MIT Press, 1994.
- . "Reducing Depreciation Allowances to Finance a Lower Corporate Tax Rate," *National Tax Journal*, v. 64, December 2011, pp. 1039-1052.
- . "Whither Tax Depreciation?" *National Tax Journal*, vol. 54, September, 2001, pp. 513-526.

Harberger, Arnold. "Tax Neutrality in Investment Incentives," *The Economics of Taxation*, eds. Henry J. Aaron and Michael J. Boskin. Washington, DC: The Brookings Institution, 1980, pp. 299-313.

Hulten, Charles, ed. *Depreciation, Inflation, and the Taxation of Income From Capital*. Washington, DC: Urban Institute, 1981.

Hulten, Charles R., and Frank C. Wykoff. "Issues in Depreciation Measurement." *Economic Inquiry*, v. 34, January 1996, pp. 10-23.

Jorgenson, Dale W. "Empirical Studies of Depreciation." *Economic Inquiry*, v. 34, January 1996, pp. 24-42.

Mackie, James. "Capital Cost Recovery," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Nadiri, M. Ishaq, and Ingmar R. Prucha. "Depreciation Rate Estimation of Physical and R&D Capital." *Economic Inquiry*, v. 34, January 1996, pp. 43-56.

Poterba, James M. "Taxation and Housing Markets: Preliminary Evidence on the Effects of Recent Tax Reforms," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986*, ed. Joel Slemrod. Cambridge, Mass: The MIT Press, 1990, pp. 13-49.

Surrey, Stanley S. *Pathways to Tax Reform.* Chapter VII: "Three Special Tax Expenditure Items: Support to State and Local Governments, to Philanthropy, and to Housing." Cambridge, Mass: Harvard University Press, 1973.

Taubman, Paul and Robert Rasche. "Subsidies, Tax Law, and Real Estate Investment," *The Economics of Federal Subsidy Programs*, Part 3: "Tax Subsidies." U.S. Congress, Joint Economic Committee, July 15, 1972, pp. 343-369.

- U.S. Congress, Congressional Budget Office. Real Estate Tax Shelter Subsidies and Direct Subsidy Alternatives. May 1977.
- , Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986. May 4, 1987, pp. 89-110.
- U.S. Department of The Treasury. Report to the Congress on Depreciation Recovery Periods and Methods. Washington, DC: June 2000.

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TAX CREDIT FOR LOW-INCOME HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.3	5.1	5.4
2012	0.3	5.3	5.6
2013	0.3	5.6	5.9
2014	0.3	5.9	6.2
2015	0.3	6.2	6.5

Authorization

Section 42.

Description

The Low Income Housing Tax Credit (LIHTC) was created by the Tax Reform Act of 1986 (TRA86, P.L. 99-514) to provide an incentive for the development or rehabilitation of affordable rental housing. Developers may receive one of two types of LIHTCs depending on the nature of their projects. Most new and rehabilitation LIHTC construction receives what is known as the "9%" credit, which is claimed over a 10-year period. In each year of the 10-year credit period the amount of the tax credit that may be claimed is roughly equal to 9 percent of a project's qualified basis (cost of construction). The 9 percent credit is intended to deliver a subsidy equal to 70 percent of a project's qualified basis in present value terms. The U.S. Department of the Treasury uses a formula to set the credit rate to deliver the 70 percent subsidy. Because the formula depends on prevailing interest rates, which vary, the actual tax credit rate fluctuates around 9 percent.

The second type of LIHTC, known as the "4 percent" credit, is generally reserved for low-income housing construction that is partly financed with tax-exempt bonds. Like the 9 percent credit, the 4 percent

credit is claimed annually over a 10-year credit period. The actual credit rate fluctuates around 4 percent, but is set by the Treasury to deliver a subsidy equal to 30 percent of a project's qualified basis in present value terms.

The credit is allowed only for the fraction of units serving low-income tenants, which are subject to a maximum rent. To qualify, at least 40 percent of the units in a rental project must be occupied by families with incomes less than 60 percent of the area median or at least 20 percent of the units in a rental project must be occupied by families with incomes less than 50 percent of the area median. Rents in low-income units are restricted to 30 percent of the 60 percent (or 50 percent) of area median income. An owner's required time commitment to keep units available for low-income use was originally 15 years, but the Omnibus Budget Reconciliation Act of 1989 extended this period to 30 years for projects begun after 1989.

The credits are allocated in a competitive process by State housing agencies to developers, most of whom then sell their 10-year stream of tax credits to investors to raise capital for the project. The original law established an annual per-resident limit of \$1.25 for the State's total credit authority. Under the Community Renewal Tax Relief Act of 2000 (P.L 106-554), this limit was increased to \$1.50 in 2001, \$1.75 in 2002, and thereafter, adjusted for inflation (originally, \$2.00 for 2008). For 2012, the state annual credit limit was \$2.20 multiplied by the state population. For states with low resident populations, there was a small state minimum limit of \$2,525,000 in 2012.

The tax credits are subject to passive loss restrictions. The amount of the credit that can be offset against unrelated active income is limited to the equivalent of \$25,000 in deductions. This limitation stems from TRA86 which in part attempted to curb the use of tax shelters.

Impact

This provision substantially reduces the cost of investing in qualified units. The competitive sale of tax credits by developers to investors and the oversight requirements by housing agencies should prevent excess profits from occurring, and direct much of the benefit to qualified tenants of the housing units.

Rationale

The tax credit for low-income housing was adopted in the Tax Reform Act of 1986 to provide a subsidy directly linked to the addition of rental

housing with limited rents for low-income households. It replaced less targeted subsidies in the law, including accelerated depreciation, five-year amortization of rehabilitation expenditures, expensing of construction-period interest and taxes, and general availability of tax-exempt bond financing. The credit was scheduled to expire at the end of 1989, but was temporarily extended a number of times until made permanent by the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66).

The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) required states to regulate tax-credit projects more carefully to insure that investors were not earning excessive rates of return and introduced the requirement that new projects have a long-term plan for providing low-income housing. Legislation in 1988, (the Technical and Miscellaneous Revenue Act of 1988, P.L. 100-647), in 1989 (noted above), and in 1990 (the Omnibus Budget Reconciliation Act of 1990, P.L. 101-508) made technical and substantive changes to the provision. As noted above, the Community Renewal Tax Relief Act of 2000 increased the annual tax credit allocation limit, indexed it to inflation, and made minor amendments to the program.

The tax credit has been used to assist victims of recent natural disasters. For example, The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) allowed states harmed by Hurricane Ike and the severe weather and flooding in the Midwest to allocate additional credits to affected areas for the years 2009, 2010, and 2011. Similar changes were enacted as part Gulf Opportunity Zone Act of 2005 to assist victims of Hurricanes Katrina, Rita, and Wilma.

The Housing and Economic Recovery Act of 2008, P.L. 110-289, temporarily changed the credit rate formula used for new construction. The act effectively placed a floor equal to 9 percent on the new construction tax credit rate. The 9 percent credit rate floor only applies to new construction placed in service before December 31, 2013. The 9 percent floor may or may not be extended. The tax credit rate (known as the 4 percent credit) that is applied to rehabilitation construction remained unaltered by the act.

During the recent economic downturn and financial crisis, the American Recovery and Reinvestment Act of 2009 (ARRA), P.L. 111-5 created a temporary LIHTC-grant exchange program to assist a depressed market for LIHTCs. The exchange program, commonly referred to as the Section 1602 LIHTC-grant exchange program after Section 1602 of ARRA, allowed states to return a portion of their tax credits to the Treasury in exchange for grants. The tax credits were exchanged at a rate of \$0.85 in grants for every \$1.00 of

LIHTCs. Only LIHTC developments that qualified for the "9 percent" credit were eligible for the exchange.

Assessment

The low-income housing credit is more targeted to benefitting lower-income individuals than the general tax provisions it replaced. Moreover, by allowing state authorities to direct its use, the credit can be used as part of a general neighborhood revitalization program. To this end, the LIHTC program today gives states about \$8.0 billion in annual budget authority.

The most comprehensive data base of tax credit units, compiled by the Department of Housing and Urban Development (HUD), revised as of September 22, 2011, shows that nearly 33,777 projects and nearly 2,203,000 housing units were placed in service between 1987 and 2009. More complete HUD data shows that between 1995 and 2009 more than 1,386 projects and nearly 103,000 units are placed in service each year. Nearly two-thirds of LIHTC construction, slightly less then one-third of the projects have a nonprofit sponsor, nearly one-half of units are located in central cities and about 40 percent are in metro area suburbs. Data also show that LIHTC units are more likely to be located in largely minority- or renter-occupied census tracts or tracts with large proportions of female-headed households, compared to households in general or rental units in general.

Much less is known about the financial aspects of tax credit projects and how much it actually costs to provide an affordable rental unit under this program when all things are considered. Many tax credit projects receive other federal subsidies, and as noted, more than one-third of tax credit renters receive additional federal rental assistance. HUD's Federal Housing Administration (FHA) program is insuring an increasing number of tax credit projects. There are reports that some neighborhoods are saturated with tax credit projects and projects targeted to households with 60 percent of area median income frequently have as high a vacancy rate as the surrounding unsubsidized market.

There are a number of criticisms that can be made of the credit (see the Congressional Budget Office study in the bibliography below for a more detailed discussion). The credit is unlikely to have a substantial effect on the total supply of low-income housing, based on both micro-economic analysis and some empirical evidence. There are significant overhead and administrative costs, especially if there are attempts to insure that investors do not earn excess profits. Direct funding by the federal government to state

housing agencies would avoid the cost of the syndication process (the sale of tax credits to investors as "tax shelters.") And, in general, many economists would argue that housing vouchers, or direct-income supplements to low-income individuals, are more direct and fairer methods of providing assistance to lower-income individuals. However, others argue that because of landlord discrimination against low-income people, minorities, and those with young children (and sometimes an unwillingness to get involved in a government program, particularly in tight rental markets), a mix of vouchers and project-based assistance like the tax credit might be necessary.

An issue at the forefront of some economists concerns is the number of completed LIHTC projects that are nearing the end of their 15-year affordability restrictions. A report by the Joint Center for Housing Studies at Harvard University and the Neighborhood Reinvestment Corporation on the expiring affordability issue concluded that: "Lack of monitoring or insufficient funds for property repair or purchase will place even properties for which there is an interest in preserving affordability at risk of market conversion, reduced income-targeting, or disinvestment and decline." An increasing amount of tax credits have been and are likely to be used for the preservation of existing affordable housing in the future rather than for new units that add to the overall supply of affordable units.

Selected Bibliography

Baum-Snow, Nathaniel, and Justin Marion. "The Effects of ow-Income Housing Developments on Neighborhoods. *Journal of Public Economics*, v. 93, no. 5, 2007, pp. 654-666.

Burman, Leonard. "Low Income Housing Credit," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Burge, Gregory S. "Do Tenants Capture the Benefits from the Low-Income Housing Tax Credit Program?" *Real Estate Economics*, v. 39, no 1, 2011, pp. 71-96.

Collignon, Kate. "Expiring Affordability of Low-Income Housing Tax Credit Properties: The Next Era in Preservation" Cambridge, MA: Neighborhood Reinvestment Corporation and Joint Center for Housing Studies of Harvard University, October 1999.

Cummings, Jean L, and Denise DiPasquale. "The Low-Income Housing Tax Credit: An Analysis of the First Ten Years," *Housing Policy Debate*, v. 10, no. 2, 1999. pp. 251-307.

Deng, Lan. "The Cost-Effectiveness of the Low-Income Housing Tax Credit Relative to Vouchers: Evidence From Six Metropolitan Areas," *Housing Policy Debate*, vol. 16, no. 3/4, 2005, pp. 469-511.

Desai, Mihir A., Monica Singhal, and Dhammika Dharmapala. "Investable Tax Credits: The Case of the Low Income Housing Tax Credit," National Bureau of Economic Research, Working Paper no. 14149, June 2008.

Eriksen, Michael and Stuart Rosenthal. "Crowd Out Effects of Place-Based Subsidized Rental Housing: New Evidence from the LIHTC Program." *Journal of Public Economics*, v. 94, no. 11/12, 2010, pp. 953-966.

December 2010: 953-966.

Freeman, Lance. Siting Affordable Housing: Location and Neighborhood Trends of Low Income Housing Tax Credit Developments in the 1990s. The Brookings Institution. March 2004.

Gale, William G., Jonathan Gruber, and Seth Stephens-Davidowitz. "Encouraging Homeownership Through the Tax Code," *Tax Notes*, v. 115, no. 12. June 18, 2007.

Green, Richard K., Stephen Malpezzi, and Kiat-Ying Seah. Low Income Housing Tax Credit Housing Developments And Property Values. *The Center for Urban Land Economics Research*. June 12, 2002.

Herman, Kim, Walter Clare, Susan Herd, Dana Jones, Erica Stewart, and Barbara Burnham. "Tax Credits and Rural Housing," *Voices from the Housing Assistance Council*, Winter 2003-2004.

Keightley, Mark P. An Introduction to the Design of the Low-Income Housing Tax Credit, Library of Congress, Congressional Research Service Report RS22389, June 2012.

—, The Low-Income Housing Tax Credit Program: The Fixed Subsidy and Variable Rate, Library of Congress, Congressional Research Service Report RS22917, May, 2010.

Khadduri, Jill, Larry Buron, and Carissa Climaco. "Are States Using the Low Income Housing Tax Credit to Enable Families with Children to Live in Low poverty and Racially Integrated Neighborhoods?" a report prepared for the *Poverty and Race Research Action Council and the National Fair Housing Alliance*, July 2006.

Korb, Jason. "The Low-Income Housing Tax Credit: HERA, ARRA and Beyond," MIT Master's Thesis, September 2009.

McClure, Kirk. "The Low-Income Housing Tax Credit Program Goes Mainstream and Moves to the Suburbs," *Housing Policy Debate*, v.17, no. 3, 2006. pp. 419-457.

Olsen, Edgar O. "The Low-Income Housing Tax Credit: An Assessment," working paper from the University of Virginia, December 2004.

Olsen, Edgar O. "Fundamental Housing Policy Reform," working paper from the University of Virginia, January 2006.

Present Realities, Future Prospects: Chicago's Low Income Housing Tax Credit Portfolio. Summary Report 2002. *Chicago Rehab Network*.

Understanding the Dynamics: A Comprehensive Look at Affordable Housing Tax Credit Properties. Ernst & Young's Affordable Housing Services, July, 2002.

United States General Accounting Office. Costs and Characteristics of Federal Housing Assistance. GAO-01-901R. July 2001.

House Committee on Ways and Means. *Tax Provisions Related to Housing*. 2004 Green Book. 108th Congress, 2nd session, March 2004, pp. 13-56 to 13-58.

Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986. May 4, 1987, pp. 152-177.

Joint Center for Housing Studies of Harvard University. The Disruption of the Low-Income Housing Tax Credit Program: Causes, Consequences, Responses, and Proposed Correctives. December, 2009.

Schwartz, Alex and Edwin Melendez. "After Year 15: Challenges to the Preservation of Housing Financed with Low-Income Housing Tax Credits," *Housing Policy Debate*, v. 19, no. 2, 2008. pp. 261-294.

Sinai, Todd, and Joel Waldfogel. "Do Low-Income Housing Subsides Increase The Occupied Housing Stock?," *Journal of Public Economics*, v. 89, no. 11/12, December 2005, pp. 2137-2164.

- U.S. Congressional Budget Office, The Cost-Effectiveness of the Low-Income Housing Tax Credit Compared with Housing Vouchers, April 1992.
- U.S. Department of Housing and Urban Development. http://www.huduser.org Making the Best Use of Your LIHTC Dollars: A Planning Paper for State Policy Makers, July 2004.
- , Assessment of the Economic and Social Characteristics of LIHTC Residents and Neighborhoods. Washington, D. C. August 2000.
- , Updating the Low Income Housing Tax Credit Database: Projects Placed in Service Through 2009. Washington, D.C. September 2011.
- U.S. Department of the Treasury, Comptroller of the Currency, Low-Income Housing Tax Credits: Affordable Housing Investment Opportunities for Banks, February 2008.

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TAX CREDIT FOR REHABILITATION OF HISTORIC STRUCTURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	0.4	0.5
2012	0.2	0.4	0.6
2013	0.2	0.4	0.6
2014	0.2	0.4	0.6
2015	0.2	0.4	0.6

Authorization

Section 47.

Description

Certified expenditures used to substantially rehabilitate certified historic structures qualify for a 20-percent tax credit. The building must be depreciable. That is, it must be used in a trade or business, or held for the production of income. It may be used for offices, for commercial, industrial or agricultural enterprises, or for rental housing. The building may not serve exclusively as the owner's private residence.

The costs of acquiring an historic building, or an interest in such a building, such as a leasehold interest, are not qualifying expenditures. The costs of facilities related to an existing building, such as a parking lot, also are not qualifying expenditures. Expenditures incurred by a lessee do not qualify for the credit unless the remaining lease term on the date the rehabilitation is completed is at least as long as the applicable recovery period under the general depreciation rules (generally, 27.5 years for residential property and 39 years for nonresidential property). Straight-line

depreciation must be used. The basis (the cost for purposes of depreciation) of the building is reduced by the amount of the rehabilitation credit.

The rehabilitation must be substantial. During a 24-month period selected by the taxpayer, rehabilitation expenditures must exceed the greater of \$5,000 or the adjusted basis of the building and its structural components. For phased rehabilitations, completed in two or more distinct stages, the measuring period is 60 months. The rehabilitation tax credit is generally allowed in the taxable year that the rehabilitated property is placed in service.

There is no upper limit on the amount of rehabilitation expenditures that can be claimed. However, under the passive-loss rules, there is a limit on the amount of deductions and credits from rental real estate investment that can be used to offset tax on unrelated income in a single tax year. The limit is the equivalent of \$25,000 in deductions. This special deduction is phased out above specified income thresholds. The ordering rules for the phaseout are provided in Section 469 of the Internal Revenue Code.

Certified historic structures are either individually registered in the National Register of Historic Places, or they are structures certified by the Secretary of the Interior as having historic significance that are located in a registered historic district. The State Historic Preservation Office reviews applications and forwards recommendations for historic designation to the U.S. Department of the Interior.

The credit has a recapture provision. The owner must hold the building for five full years after completing the rehabilitation, or pay back the credit. If the owner disposes of the building within a year after it is placed in service, 100 percent of the credit is recaptured. For properties held between one and five years, the tax-credit recapture-amount is reduced by 20 percent per year. The National Park Service or the State Historic Preservation Office may inspect a rehabilitated property at any time during the five-year period. The National Park Service may revoke certification if the building alterations do not conform to the plans specified in the application.

Section 47 also provides a 10-percent tax credit for the rehabilitation of commercial structures that were built before 1936 but are not historically certified. (See the entry on "Investment Credit for Rehabilitation of Structures, Other Than Historic Structures.")

Impact

The credit reduces the taxpayer's cost of restoring historic buildings. The availability of the credit may raise the prices offered for certified historic structures in need of rehabilitation. Prior to 1986, historic preservation projects had become a popular, rapidly growing tax shelter. To help restrain this, the Tax Reform Act of 1986 (P.L. 99-514) imposed at-risk rules and passive-loss limits on deductions and credits from investments in rental real estate.

Both historic and non-historic rehabilitation projects proliferated after the introduction of the tax credits in 1981. Following the introduction of the passive-loss rules on individual investors in 1986, however, there was a steep decline in rehabilitation projects sponsored by limited partnerships and other syndication structures that linked individual investors to developers. Rehabilitation activity continued to decline through 1993. During the second half of the 1990s, historic rehabilitation rebounded, but in a new form. Corporations that had become regular investors under the Low-Income Housing Tax Credit (LIHTC) program began "twinning" or combining the historic tax credit (HTC) with the LIHTC by rehabilitating historic properties for affordable housing, sometimes also including retail or office space in the building. Subsequently, developers began twinning the HTC with the federal New Markets Tax Credit (NMTC), enacted in 2000. (See the entries on "Tax Credit for Low-Income Housing" and "New Markets Tax Credit and Renewal Community Tax Incentives.")

In addition to these federal tax credits, developers may receive tax credits on their state income taxes as well. In 2009, approximately 30 states had historic preservation tax credits, 16 states had low income housing tax credits, and eight states had new markets tax credits.

Investments claiming the federal historic tax credit reached record highs in 2008 and 2009. But the HTC program is small compared to the LIHTC and NMTC programs. According to the National Park Service, the historic rehabilitation tax credit has helped leverage over \$55 billion in rehabilitation investments, from its inception in 1976 through fiscal year 2009.

Rationale

Congress identified the preservation of historic structures and neighborhoods as an important national goal. But achieving that goal depended on enlisting private funds in the preservation movement. It was argued that prior law encouraged the demolition and replacement of old buildings instead of their rehabilitation and re-use.

The Tax Reform Act of 1976 (P.L. 94-455) introduced rapid depreciation (amortization over a 60-month period) for capital expenditures incurred in the rehabilitation of certified historic structures. In addition, the 1976 act provided that in the case of a substantially altered or demolished certified historic structure, the amount expended for demolition, or any loss sustained on account of the demolition, is to be charged to the capital account with respect to the land; it is not to be included in the depreciable basis of a replacement structure. Further, the act prohibited accelerated depreciation for a replacement structure.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) provided a 25-percent tax credit for income-producing certified historic rehabilitation, a 15-percent credit for the rehabilitation of non-historic buildings at least 30 years old, and a 20-percent credit for renovation of existing commercial properties at least 40 years old.

The Tax Reform Act of 1986 (P.L. 99-514) simplified the structure from three to two tiers and lowered the credit rates, in keeping with the lowered tax rates on income under the act. The credit for certified historic rehabilitation was reduced from 25 percent to 20 percent. The 15-percent and 20-percent credits for the rehabilitation of non-historic buildings were combined into one credit of 10 percent for rehabilitating older qualified buildings first placed in service prior to 1936. The 1986 act also imposed limits on the use of credits and deductions from rental real estate investments, in the form of at-risk rules and passive-loss limitations.

In 2002, tax simplification proposals noted the numerous limitations and qualifications under the passive- loss rules. In response, the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) clarified the ordering rules in the Internal Revenue Code (section 469(i)(3)(E)).

The Gulf Opportunity Zone Act of 2005 (GO Zone, P.L. 109-135) temporarily increased the rate of the 20-percent tax credit to 23 percent, and the 10-percent credit to 13 percent. The 23-percent credit applied to the rehabilitation of certified historic structures located in specific areas of the Gulf Region that had been adversely affected by Hurricanes Katrina, Rita, and Wilma in the fall of 2005. It was effective for expenditures made from August 28, 2005 through December 31, 2008. The Emergency Economic

Stabilization Act of 2008 (P.L. 110-343) extended this provision one year, through December 31, 2009.

Assessment

The 20-percent tax credit is available for substantial rehabilitation expenditures approved by the National Park Service. The credit encourages the renovation of historic buildings. Opponents argue that the credit leads to economic inefficiency by encouraging investment in historic renovation projects that would not be profitable without the credit.

Proponents of the tax credit say that investors may otherwise fail to consider the positive externalities from renovating historic buildings, such as the value to society at large from preserving social and aesthetic assets. Proponents of the tax credit commonly cite the number of jobs in the rehabilitated building as jobs created by the tax credit. While the tax credit may influence the decision to locate jobs in a rehabilitated historic building rather than elsewhere, that does not necessarily mean that the rehabilitation created new jobs – other than the construction jobs involved in rehabilitating the building. Proponents also claim that the credit has a benefit-cost ratio of 5-to-1(that it generates \$5 in investment for every \$1 of tax-revenue cost); but that ratio would be expected from a 20-percent tax credit.

The rehabilitation tax credit receives more administrative oversight than most other tax provisions. To qualify for the credit, the rehabilitation expenditures must be certified by the U.S. National Park Service both when they are proposed and after the project is completed. Furthermore, the credit has recapture provisions.

Selected Bibliography

Alperin, Kenneth A. "What You Should Know About The Historic Rehabilitation Tax Credit." *The Practical Tax Lawyer*, Vol. 19. Issue 2, 2005, pp. 31-39.

Escherich, Susan M., Stephen J. Farneth, and Bruce D. Judd; with a preface by Katherine H. Stevenson. "Affordable Housing Through Historic Preservation: Tax Credits and the Secretary of the Interior's Standards for Historic Rehabilitation," Washington, DC, U.S. Dept. of the Interior, National Park Service, Cultural Resources. Preservation Assistance, For sale by the U.S. Government Printing Office, Superintendent of Documents [1995].

Fogleman, Valerie M. "A Capital Tax System to Preserve America's Heritage: A Proposal Based on the British National Heritage Capital Tax System," *Vanderbilt Journal of Transnational Law*, Vol. 23, 1990, pp. 1-63.

Foong, Keat. "Historic Tax Credit Use Continues to Rise: Use of Federal Program Can Be Extremely Lucrative, Although Requirements Can Deter Developers," *Multi-Housing News*, Vol. 37 (July 2002), pp. 1-4.

Historic Tax Credit Coalition, National Trust Community Investment Corporation, and the Edward J. Bloustein School of Planning and Public Policy, Rutgers University. First Annual Report on the Economic Impact of the Federal Historic Tax Credit, March 2010.

Kamerick, Megan. "Framers Get a History Lesson: Historic Tax Credits Can Help Framers Secure the Shops of Their Dreams," *Art Business News*, Vol. 31 (April 2003), p. S1.

Linn, Charles. "PSFS Adaptive Reuse Illustrates Preservation Tax Credits at Work," *Architectural Record*, Vol. 188 (October 2000), p. 63.

Listokin, David, Barbara Listokin, and Michael Lahr. "The Contributions of Historic Preservation to Housing and Economic Development," *Housing Policy Debate*, Vol. 9, Issue 3, 1998, pp. 431-478.

Mann, Roberta F. "Tax Incentives for Historic Preservation: An Antidote for Sprawl?" *Widener Law Symposium Journal*, Vol. 8, 2002, pp. 207-236.

Novogradac, Michael J. and Eric J. Fortenbach. "Financing Rehab Projects with the Rehabilitation Tax Credit," *Journal of Property Management*, Vol. 54 (September-October 1989), pp. 72-73.

Oliver-Remshefski, Rebecca N. "Washington Slept Here: Protection and Preservation of Our Architectural Heritage," *Rutgers Law Review*, Vol. 55 (Winter 2003), pp. 611-640.

Smith, Neil. "Comment on David Listokin, Barbara Listokin, and Michael Lahr's The Contributions of Historic Preservation to Housing and Economic Development: Historic Preservation in a Neoliberal Age," *Housing Policy Debate*, Vol. 9, 1998, pp. 479-485.

Swaim, Richard. "Politics and Policymaking: Tax Credits and Historic Preservation," *Journal of Arts Management, Law, and Society*, Vol. 33, issue 1 (Spring 2003), pp. 32-40.

- U.S. Congress, Congressional Budget Office. "Reduce Tax Credits for Rehabilitating Buildings and Repeal the Credit for Nonhistoric Structures." In *Budget Options*. Washington, DC, February 2001, p. 427.
- U.S. Congress, Joint Committee on Taxation. General Explanation of the Economic Recovery Tax Act of 1981 (H.R. 4242, 97th Congress: Public Law 97-34). Washington, DC, U.S. Government Printing Office, December 31, 1981, pp. 111-116.
- . General Explanation of the Revenue Act of 1978 (H.R. 13511, 95th Congress; Public Law 95-600). Washington, DC, U.S. Government Printing Office, March 12, 1978, pp. 155-158.
- . General Explanation of the Tax Reform Act of 1986 (H.R. 3838, 99th Congress; Public Law 99-514). Washington, DC, U.S. Government Printing Office, May 4, 1987.

- U.S. Department of the Interior, National Park Service, Technical Preservation Services. *Historic Preservation Tax Incentives*. Washington, DC, 2009.
- . Federal Tax Incentives for Rehabilitating Historic Buildings, Annual Report for Fiscal Year 2011, Washington, DC, December 2011.
- . Federal Tax Incentives for Rehabilitating Historic Buildings, Statistical Report and Analysis for Fiscal Year 2009, Washington, DC, February 2010.
- U.S. General Accounting Office. *Historic Preservation Tax Incentives*. Washington, DC, August 1, 1986.

Commerce and Housing: Housing

INVESTMENT CREDIT FOR REHABILITATION OF STRUCTURES, OTHER THAN HISTORIC STRUCTURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	0.1	0.2
2012	0.2	0.1	0.3
2013	0.2	0.1	0.3
2014	0.2	0.1	0.3
2015	0.2	0.1	0.3

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 47.

Description

Qualified expenditures made to substantially rehabilitate a non-historic, non-residential building are eligible for a 10-percent tax credit. Only expenditures on buildings placed in service before 1936 are eligible. A building that was moved after 1935 is ineligible. Expenditures made during any 24-month period must exceed the greater of \$5,000 or the adjusted basis (cost less depreciation taken) of the building. There is no upper limit on the rehabilitation expenditures that can be claimed. The property must be depreciable. The basis must be reduced by the full amount of the credit. The tax credit may be claimed for the tax year in which the rehabilitated building is placed in service.

For a building to be eligible, at least 50 percent of the external walls must be retained as external walls, at least 75 percent of the exterior walls must be retained as internal or external walls, and at least 75 percent of the internal structural framework of the building must be retained. While rental

housing does not qualify for the credit, hotels do, because hotels are considered to be a commercial rather than a residential use.

Section 47 also provides a 20-percent tax credit for the substantial rehabilitation of certified historic structures. (See entry on "Tax Credit for Rehabilitation of Historic Structures.") The two credits are mutually exclusive. Unlike historic rehabilitation, there is no formal administrative review process for the rehabilitation of non-historic buildings.

Impact

The tax credit encourages businesses to renovate property rather than relocate by reducing the cost of building rehabilitation. The availability of the tax credit may turn an unprofitable rehabilitation project into a profitable one, and may make rehabilitating a building more profitable than new construction.

Rationale

In 1978 there was concern about the declining usefulness of older buildings, especially in older neighborhoods and central cities. In response, the Revenue Act of 1978 (P.L. 95-600) introduced an investment tax credit for rehabilitation expenditures for non-residential buildings in use for at least 20 years. The purpose was to promote stability in and restore economic vitality to deteriorating areas.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) provided a 25-percent tax credit for income-producing certified historic rehabilitation, a 15-percent credit for the rehabilitation of non-historic buildings at least 30 years old, and a 20-percent credit for renovation of existing commercial properties at least 40 years old. The purpose was to counteract the tendency of significantly shortened depreciation recovery periods to encourage firms to relocate and build new plants. Concerns were expressed that investment in new structures in new locations does not promote economic recovery if it displaces older structures, and that relocating a business can cause hardship for workers and their families.

The Tax Reform Act of 1986 (P.L. 99-514) simplified the structure of the rehabilitation credits from three to two tiers and lowered the credit rates, in keeping with the lowered tax rates on income under the act. The credit for certified historic rehabilitation was reduced from 25 percent to 20 percent. The 15-percent and 20-percent credits for the rehabilitation of non-historic

buildings were combined into one credit of 10 percent for rehabilitating older qualified buildings first placed in service prior to 1936.

The Gulf Opportunity Zone Act of 2005 (GO Zone, P.L. 109-135) temporarily increased the rate of the non-historic rehabilitation credit from 10 percent to 13 percent. The 13-percent credit applied to the rehabilitation of non-residential structures located in specific areas of the Gulf Region that had been adversely affected by Hurricanes Katrina, Rita, and Wilma in the fall of 2005. It was effective for expenditures made from August 28, 2005 through December 31, 2008. The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended this provision one year, through December 31, 2009.

Assessment

The main criticism of the tax credit is that it causes economic inefficiency by encouraging investment projects – restoring older buildings – that would not be profitable without the credit. A defense of the tax subsidy is that there may be external benefits to society that investors would not take into account, such as preserving the aesthetic attributes of older buildings, or stabilizing neighborhoods by promoting the re-use of existing buildings rather than having the buildings abandoned.

Proponents of updating the credit point out that when the fixed cutoff date of 1936 was set in 1976, the credit was available for buildings 40 or more years old. They argue that if buildings at least 40 years old are considered worth saving, then the law should provide for a rolling qualification period, rather than the fixed date, which disqualifies buildings built after 1936 that may now be well over 40 years old. The Joint Committee on Taxation has recommended eliminating the 10-percent credit based on simplification arguments.

Selected Bibliography

Everett, John O. "Rehabilitation Tax Credit Not Always Advantageous," *Journal of Taxation*, August 1989, pp. 96-102.

Kamerick, Megan. "Framers get a History Lesson: Historic Tax Credits Can Help Framers Secure the Shops of Their Dreams," *Art Business News*, Vol. 31 (April 2003), p. S1.

Mann, Roberta F. "Tax Incentives for Historic Preservation: An Antidote for Sprawl?" Widener Law Symposium Journal, Vol. 8, 2002, pp. 207-236.

Oliver-Remshefski, Rebecca N. "Washington Slept Here: Protection and Preservation of Our Architectural Heritage," *Rutgers Law Review*, Vol. 55 (Winter 2003), pp. 611-640.

Taylor, Jack. Income Tax Treatment of Rental Housing and Real Estate Investment After the Tax Reform Act of 1986, Library of Congress, Congressional Research Service Report 87-603 E. Washington, DC, July 2, 1987.

- U.S. Congress, Congressional Budget Office. *Budget Options*. "Reduce Tax Credits for Rehabilitating Buildings and Repeal the Credit for Nonhistoric Structures." Washington, DC, February 2001, p. 427.
- U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Act of 1978, H.R. 13511, 95th Congress, Public Law 95-600.* Washington, DC: U.S. Government Printing Office, March 12, 1979, pp. 155-158.
- . General Explanation of the Economic Recovery Tax Act of 1981, H.R. 4242, 97th Congress, Public Law 97-34. Washington, DC, U.S. Government Printing Office, December 31, 1981, pp. 111-116.
- . General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514. Washington, DC, U.S. Government Printing Office, May 4, 1987, pp. 148-152.
- U.S. Department of the Interior, National Park Service, Technical Preservation Services. *Historic Preservation Tax Incentives*. Washington, DC, 2009.
- U.S. General Accounting Office. *Historic Preservation Tax Incentives*. Washington, DC, August 1, 1986.

Commerce and Housing: Housing

EXCLUSION OF INCOME ATTRIBUTABLE TO THE DISCHARGE OF PRINCIPAL RESIDENCE ACQUISITION INDEBTEDNESS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.0	-	1.0
2012	1.0	-	1.0
2013	0.3	-	0.3
2014	-	-	-
2015	-	-	-

Authorization

Section 108.

Description

Mortgage debt cancellation can occur when lenders either (1) restructure loans, reducing principal balances or (2) sell properties, either in advance, or as a result, of foreclosure proceedings. Historically, if a lender forgives or cancels such debt, tax law has treated it as cancellation of debt (COD) income subject to tax. Exceptions, however, have been available for certain taxpayers who are insolvent or in bankruptcy — these taxpayers may exclude canceled mortgage debt income under existing law.

An additional exception allows for the exclusion of discharged qualified residential debt from gross income. Qualified indebtedness is defined as debt, limited to \$2 million (\$1 million if married filing separately), incurred in acquiring, constructing, or substantially improving the taxpayer's principal residence that is secured by such residence. It also includes refinancing of this debt, to the extent that the refinancing does not exceed the amount of

refinanced indebtedness. The taxpayer is required to reduce the basis in the principal residence by the amount of the excluded income.

The provision does not apply if the discharge was on account of services performed for the lender or any other factor not directly related to a decline in the residence's value or to the taxpayer's financial condition. The additional exclusion of discharged qualified residential debt applies to discharges that are made on or after January 1, 2007, and before January 1, 2013. This provision may or may not be extended.

Impact

The benefits stemming from the exclusion of discharged qualified residential debt from gross income will be concentrated among middle- and higher- income taxpayers, as these households have likely incurred the largest residential debt and are subject to higher marginal tax rates. To a lesser extent, the benefits also extend to lower-income new homeowners who are in distress as a result of interest rate resets and the slowdown in general economic activity. The residential debt of lower-income households, however, is relatively small, thus limiting the overall benefit accruing to these taxpayers.

According to economic theory, discharged debt qualifies as income. As a result, the impact of the exclusion differs across taxpayers with identical income. Specifically, a household who has no forgiven debt can be expected to pay more taxes. all else equal, than a household who has the same amount of income, a part of which constitutes canceled debt.

Rationale

A rationale for excluding canceled mortgage debt income has focused on minimizing hardship for households in distress. Policymakers have expressed concern that households experiencing hardship and in danger of losing their home, presumably as a result of financial distress, should not incur an additional hardship by being taxed on canceled debt income. Some analysts have also drawn a connection between minimizing hardship for individuals and consumer spending; reductions in consumer spending, if significant, can lead to recession.

This provision, as originally included in the Mortgage Forgiveness Debt Relief Act of 2007, P.L. 110-142, was set to expire on January 1, 2011. The

Emergency Economic Stabilization Act of 2008, P.L. 110-343, extended the exclusion through December 31, 2012. This provision may or may not be extended.

Assessment

By reducing the amount of taxes a homeowner would otherwise be required to pay, this provision provides relief to those who have qualified residential debt canceled by their lender. The exclusion also likely helps to support consumer spending among distressed borrowers by providing them with an income tax cut. Allowing canceled debt to be excluded from taxable income, however, does not guarantee that a distressed homeowner will retain their home — such outcome is determined in the loss mitigation process.

Opponents argue that an exclusion for canceled mortgage debt income increases the attractiveness of debt forgiveness for homeowners, and could encourage homeowners to be less responsible about fulfilling debt obligations. Some also question why the exclusion is not permanent. If the objective of the exclusion is to provide relief for distressed borrowers, then allowing the exclusion for all borrowers regardless of the overall default rate would be consistent with this objective.

Selected Bibliography

Internal Revenue Service, "The Mortgage Forgiveness Debt Relief Act and Debt Cancellation," August 3, 2012, at [http://www.irs.gov/Individuals/The-Mortgage-Forgiveness-Debt-Relief-Act-and-Debt-Cancellation], visited October 17, 2012.

Keightley, Mark P, and Erika Lunder. *Analysis of the Tax Exclusion for Canceled Mortgage Debt Income*. Library of Congress, Congressional Research Service Report RL34212. May, 2012.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of Title III (Tax Provisions) of Division A of H.R. 1424, The Emergency Economic Stabilization Act of 2008*, JCX-79-08, Washington, DC, October 1, 2008.

REDUCED RATES OF TAX ON DIVIDENDS AND LONG-TERM CAPITAL GAINS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	90.5	**	90.5
2012	93.1	-	93.1
2013	110.4	-	110.4
2014	71.4	-	71.4
2015	91.3	-	91.3

Note: Tax rates on capital gains and dividends are scheduled to rise after 2012, which is reflected in these estimates.

Authorization

Sections 1(h), 631, 1201-1256.

Description

Dividends on corporate stock and gains on the sale of capital assets held for more than a year are subject to lower tax rates under the individual income tax. Individuals subject to the 10- or 15-percent rate pay a zero-percent rate, and individuals in higher tax brackets pay a 15-percent rate. After 2012, the rates are scheduled to revert to the levels that existed prior to changes in 2003 (see rationale). Gain arising from prior depreciation deductions is taxed at ordinary rates, but gain arising from straight line depreciation on real estate is taxed at a maximum rate of 25 percent. Also, gain on the sale of property used in a trade or business is treated as a long-term capital gain if all gains for the year on such property exceed all losses for the year on such property. Qualifying property used in a trade or business generally is depreciable property or real estate that is held more than a year, but not inventory.

The tax expenditure is the difference between taxing gains and dividends at the lower rates and taxing them at the rates that apply to other income. Capital gains of income from timber, coal and iron ore royalties are listed separately under the Natural Resources section. To be eligible for the lower dividend rate, stock must be held for 60 out of 120 days that begin 60 days before the ex-dividend day. Only stock paid by domestic corporations and qualified foreign corporations is eligible. For passthrough entities, RICs (regulated investment companies, commonly known as mutual funds), and real estate investment trusts (REITs) payments to shareholders are eligible only to the extent they were qualified dividends to the passthrough entities.

Impact

Since higher-income individuals receive most capital gains, benefits accrue to high-income taxpayers. Dividends are also concentrated among higher income individuals, although not to as great a degree as capital gains. Estimates of the benefit provided in the table below are based on data provided by the Joint Committee on Taxation. (These data were released by the Democratic staff of the Ways and Means Committee, June 7, 2006).

Estimated Distribution of Tax Expenditure, 2005
[In billions of dollars]

Income Class	Capital Gains	Dividends
Less than \$50,000	1.5	5.8
\$50,000-\$100,000	3.9	13.6
\$100,000-\$200,000	7.1	17.5
\$200,000-\$1,000,000	21.9	31.1
Over \$1,000,000	65.6	32.0

The primary assets that typically yield capital gains are corporate stock and business and rental real estate. Corporate stock accounts for 20 percent to 50 percent of total realized gains, depending on the state of the economy and the stock market. There are also gains from assets such as bonds, partnership interests, owner-occupied housing, timber, and collectibles, but all of these are relatively small as a share of total capital gains.

Rationale

Although the original 1913 Act taxed capital gains at ordinary rates, the 1921 law provided for an alternative flat-rate tax for individuals of 12.5 percent for gain on property acquired for profit or investment. This treatment was intended to minimize the influence of the high progressive rates on market transactions. The Committee Report noted that these gains are earned over a period of years, but are nevertheless taxed as a lump sum. Over the years, many revisions in this treatment have been made. In 1934, a sliding scale treatment was adopted (where lower rates applied the longer the asset was held). This system was revised in 1938.

In 1942, the sliding scale approach was replaced by a 50-percent exclusion for all but short-term gains (held for less than six months), with an elective alternative tax rate of 25 percent. The alternative tax affected only individuals in tax brackets above 50 percent. The 1942 Act also extended special capital gains treatment to property used in the trade or business, and introduced the alternative tax for corporations at a 25-percent rate, the alternative tax rate then in effect for individuals. This tax relief was premised on the belief that many wartime sales were involuntary conversions which could not be replaced during wartime, and that resulting gains should not be taxed at the greatly escalated wartime rates.

Treatment of gain from cutting timber was adopted in 1943, in part to equalize the treatment of those who sold standing timber (where income would automatically be considered a capital gain) and those who sold cut timber. Capital gains treatment for coal royalties was added in 1951 to equalize treatment of coal lessors and timber lessors and to encourage coal production. Similar treatment of iron ore was enacted in 1964 to make the treatment consistent with coal and to encourage production. The 1951 Act also specified that livestock was eligible for capital gains, an issue that had been in dispute since 1942.

In 1969, the alternative tax for individuals was repealed, and the alternative rate for corporations was reduced to 30 percent. The minimum tax on preference income and the maximum tax offset, enacted in 1969, raised the capital gains rate for some taxpayers.

In 1976 the minimum tax was strengthened, and the holding period lengthened to one year. The effect of these provisions was largely eliminated in 1978, which also saw the introduction of a 60-percent exclusion for individuals and a lowering of the alternative rate for corporations to 28

percent. The alternative corporate tax rate was chosen to apply the same maximum marginal rate to capital gains of corporations as applied to individuals (since the top rate was 70 percent, and the capital gains tax was 40 percent of that rate due to the exclusion).

The Tax Reform Act of 1986, which lowered overall tax rates and provided for only two rate brackets (15 percent and 28 percent), provided that capital gains would be taxed at the same rates as ordinary income. This rate structure included a "bubble" due to phase-out provisions that caused effective marginal tax rates to go from 28 percent to 33 percent and back to 28 percent.

In 1990, this bubble was eliminated, and a 31-percent rate was added to the rate structure. There had, however, been considerable debate over proposals to reduce capital gains taxes. Since the new rate structure would have increased capital gains tax rates for many taxpayers from 28 percent to 31 percent, the separate capital gains rate cap was introduced. The 28-percent rate cap was retained when the 1993 Omnibus Budget Reconciliation Act added a top rate of 36 percent and a 10-percent surcharge on very high incomes, producing a maximum rate of 39.6 percent.

The Taxpayer Relief Act of 1997 provided lower rates; its objective was to increase saving and risk-taking, and to reduce lock-in. Individuals subject to the 15-percent rate paid a 10-percent rate, and individuals in the 28-, 31-, 36-, and 39.6-percent rate brackets paid a 20-percent rate. Gain arising from prior depreciation deductions was taxed at ordinary rates but with a maximum of 28 percent. Eventually, property held for five years or more would be taxed at 8 percent and 18 percent, rather than 10 percent and 20 percent. The 8-percent rate applied to sales after 2000; the 18-percent rate applied to property *acquired* after 2000 (and, thus, to such property sold after 2005). The holding period was increased to 18 months, but cut back to one year in 1998.

The Jobs and Growth Tax Relief Reconciliation Act of 2003 provided for the current lower rates, with a sunset after 2008 (extended to 2010 by the Tax Increase Prevention and Reconciliation Act of 2006 and then to 2012 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010). The stated rationale was to encourage investment and growth, and to reduce the distortions due to higher taxes on dividends, which also encouraged use of debt finance and retention of earnings.

Assessment

The original rationale for allowing a capital gains exclusion or alternative tax benefit—the problem of bunching of income under a progressive tax—is relatively unimportant under the current flatter rate structure.

A primary rationale for reducing the tax on capital gains is to mitigate the lock-in effect. Since the tax is paid only on a realization basis, an individual is discouraged from selling an asset. This effect causes individuals to hold a less desirable mix of assets, causing an efficiency loss. This loss could be quite large relative to revenue raised if the realizations response is large.

Some have argued, based on certain statistical studies, that the lock-in effect is, in fact, so large that a tax cut could actually raise revenue. Others have argued that the historical record and other statistical studies do not support this view, and that capital gains tax cuts will cause considerable revenue loss. This debate about the realizations response has been a highly controversial issue, although the weight of the evidence suggests that capital gains tax cuts lead to revenue losses.

Although there are efficiency gains from reducing lock-in, capital gains taxes can also affect efficiency through other means, primarily through the reallocation of resources between types of investments. Lower capital gains taxes may disproportionately benefit real estate investments, and may cause corporations to retain more earnings than would otherwise be the case, causing efficiency losses. At the same time lower capital gains taxes reduce the distortion that favors corporate debt over equity, which produces an efficiency gain.

Another argument in favor of capital gains relief is that much of gain realized is due to inflation. On the other hand, capital gains benefit from deferral of tax in general, and this deferral can become an exclusion if gains are held until death. Moreover, many other types of capital income (e.g., interest income) are not corrected for inflation.

The particular form of this capital gains tax relief also results in a greater concentration towards higher-income individuals than would be the case with an overall exclusion.

The extension of lower rates to dividends in 2003 significantly reduced the pre-existing incentives to corporations to retain earnings and finance with debt, and reduced the distortion that favors corporate over non-corporate investment. It is not at all clear, however, that the lower tax rates will induce increased saving, another stated objective of the 2003 dividend relief, if the tax cuts are financed with deficits.

Selected Bibliography

Amromin, Gene, Paul Harrison, Nellie Liang, and Steven Sharpe. *How Did the 2003 Dividend Tax Cut Affect Stock Prices and Corporate Payout Policy*? Board of Governors of the Federal Reserve System, Finance and Economic Discussion Series 2005-57, 2005.

Amromin, Gene, Paul Harrison, and Steven Sharpe. *How Did the 2003 Dividend Tax Cut Affect Stock Prices*? Board of Governors of the Federal Reserve System, Finance and Economic Discussion Series 2005-61, 2005.

Auerbach, Alan J. "Capital Gains Taxation and Tax Reform," *National Tax Journal*, v. 42. September 1989, pp. 391-401.

— and Jonathan Siegel. "Capital Gains Realizations of the Rich and Sophisticated," *American Economic Review, papers and proceedings*, v. 84, May 2000, pp. 276-282.

Auerbach, Alan J., Leonard E. Burman, and Jonathan Siegel. "Capital Gains Taxation and Tax Avoidance," in *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, ed. Joel B. Slemrod. New York: Russell Sage, 2000.

Auten, Gerald. "Capital Gains Taxation," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

—, Leonard E. Burman, and William C. Randolph. "Estimation and Interpretation of Capital Gains Realization Behavior: Evidence from Panel Data," *National Tax Journal*, v. 42. September 1989, pp. 353-374.

Auten, Gerald E., and Joseph J. Cordes. "Cutting Capital Gains Taxes," *Journal of Economic Perspectives*, v. 5. Winter 1991, pp. 181-192.

Bailey, Martin J. "Capital Gains and Income Taxation," *Taxation of Income From Capital*, ed. Arnold C. Harberger. Washington, DC: Brookings Institution, 1969, pp. 11-49.

Blouin, Jennifer L., Jana Smith Raedy, and Douglas A. Shackelford. "Did Dividends Increase Immediately After the 2003 Reduction in Tax Rates?" NBER Working Paper 10301, Cambridge, MA: National Bureau of Economic Research, February, 2004.

Bogart, W.T. and W.M. Gentry. "Capital Gains Taxes and Realizations: Evidence from Interstate Comparisons." *Review of Economics and Statistics*, v. 71, May 1995, pp. 267-282.

Burman, Leonard E. *The Labyrinth of Capital Gains Tax Policy*. Washington, DC: Brookings Institution, 1999.

- . "Why Capital Gains Tax Cuts (Probably) Don't Pay for Themselves," *Tax Notes*. April 2, 1990, pp. 109-110.
- and Peter D. Ricoy. "Capital Gains and the People Who Realize Them," *National Tax Journal*, v. 50, September 1997, pp. 427-451.
- and William C. Randolph. "Measuring Permanent Responses to Capital Gains Tax Changes In Panel Data," *American Economic Review*, v. 84, September 1994.
- . "Theoretical Determinants of Aggregate Capital Gains Realizations." Manuscript, 1992.
- , Kimberly Clark and John O'Hare. "Tax Reform and Realization of Capital Gains in 1986," *National Tax Journal*, v. 41, March 1994, pp. 63-87.

Carroll, Robert, Kevin A. Hassett, and James B. Mackie. "The Effect of Dividend Tax Relief on Investment Incentives," *National Tax Journal*, v. 56, September 2003, pp. 629-651.

Cook. Eric W., and John F. O'Hare. "Capital Gains Redux: Why Holding Periods Matter." *National Tax Journal*, v. 45. March 1992, pp. 53-76.

Chetty, Raj and Emmanuel Saez. "Dividend Taxes and Corporate Behavior: Evidence from the 2003 Dividend Tax Cut," *Quarterly Journal of Economics*, v. 120, August 2005, pp. 791-833.

Dai, Zhonglan, Edward Maydew, Douglas A. Shackelford, and Harold H. Zhang. "Capital Gains Taxes and Asset Prices: Capitalization or Lockin?" *Journal of Finance*, v. 63, no. 2, April 2008, pp. 709-742.

David, Martin. *Alternative Approaches to Capital Gains Taxation*. Washington DC: The Brookings Institution, 1968.

Davis, Albert J. "Measuring the Distributional Effects of Tax Changes for the Congress," *National Tax Journal*, v. 44. September, 1991, pp. 257-268.

Desai, Mihir. "Taxing Corporation Capital Gains," *Tax Notes*, March 6, 2006, pp. 1079-1092.

Dowd, Tim, Robert McClelland, and Athiphat Muthitacharoen. "New Evidence on the Tax Elasticity of Capital Gains," Congressional Budget Office, working paper 2012-09, June 2012.

Esenwein, Gregg and Jane G. Gravelle, *The Taxation of Dividend Income: An Overview and Economic Analysis of the Issues*, Library of Congress, Congressional Research Service, Report RL31597, Washington, DC: June 2, 2006.

Fox, John O. "The Great Capital Gains Debate," Chapter 12, *If Americans Really Understood the Income Tax*, Boulder, Colorado: Westview Press, 2001.

Gillingham, Robert, and John S. Greenlees. "The Effect of Marginal Tax Rates on Capital Gains Revenue: Another Look at the Evidence," *National Tax Journal*, v. 45, June 1992, pp. 167-178.

Gordon, Roger, and Martin Dietz. *Dividends and Taxes*, National Bureau of Economic Research Working Paper 12292, Cambridge, MA, 2005.

Gravelle, Jane G. Can a Capital Gains Tax Cut Pay for Itself? Library of Congress, Congressional Research Service Report 90-161 RCO. Washington, DC: March 23, 1990.

- . Capital Gains Taxes: An Overview. Library of Congress, Congressional Research Service Report 96-769 E. Washington, DC: Updated July 15, 2003.
- . Capital Gains Taxes, Innovation and Growth. Library of Congress, Congressional Research Service Report RL30040, July 14, 1999.
- . Economic Effects of Taxing Capital Income, Chapters 4 and 6, Cambridge, MA: MIT Press, 1994.
- . "Effects of Dividend Relief on Economic Growth, The Stock Market, and Corporate Tax Preferences," *National Tax Journal*, v. 56, September 2003, pp. 653-668.
- . Limits to Capital Gains Feedback Effects. Library of Congress. Congressional Research Service Report 91-250. Washington, DC: March 15, 1991.

Hoerner, J. Andrew, ed. *The Capital Gains Controversy: A Tax Analyst's Reader*, Arlington, VA: Tax Analysts, 1992.

Holt, Charles C. and John P. Shelton, "The Lock-In Effect of the Capital Gains Tax," *National Tax Journal*, v. 15. December 1962, pp. 357-352.

Hungerford, Thomas L. *The Economic Effects of Capital Gains Taxation*, Library of Congress, Congressional Research Service Report R40411, Washington. DC: June 18, 2010.

— and Jane G. Gravelle. An Analysis of the Tax Treatment of Capital Losses, Library of Congress, Congressional Research Service Report RL31562, Washington, DC: October 20. 2008.

Kiefer, Donald W. "Lock-In Effect Within a Simple Model of Corporate Stock Trading," *National Tax Journal*, v. 43. March 1990, pp. 75-95.

Lang, Mark H. and Douglas A. Shackleford. "Capitalization of Capital Gains Taxes: Evidence from Stock Price Reactions to the 1997 Rate Reduction." *Journal of Public Economics*, v. 76 (April 2000), pp. 69-85.

Minarik, Joseph. "Capital Gains," *How Taxes Affect Economic Behavior*, eds. Henry J. Aaron and Joseph A. Pechman. Washington, DC: Brookings Institution, 1983, pp. 241-277.

Plancich, Stephanie. "Mutual Fund Capital Gain Distributions and the Tax Reform Act of 1997," *National Tax Journal*, v.56, March 2003 (Part 2), pp. 271-96.

Poterba, James, "Venture Capital and Capital Gains Taxation," *Tax Policy and the Economy*, v. 3, ed. Lawrence H. Summers, National Bureau of Economic Research. Cambridge, Mass.: MIT Press, 1989, pp. 47-67.

Slemrod, Joel and William Shobe. "The Tax Elasticity of Capital Gains Realizations: Evidence from a Panel of Taxpayers," National Bureau of Economic Research Working Paper 3737, January 1990.

- U.S. Congress, Congressional Budget Office. How Capital Gains Tax Rates Affect Revenues: The Historical Evidence, Washington, DC: U.S. Government Printing Office, March 1988.
- . An Analysis of the Potential Macroeconomic Effects of the Economic Growth Act of 1998. Prepared by John Sturrock. Washington, DC: August 1, 1998.
- . *Indexing Capital Gains*, prepared by Leonard Burman and Larry Ozanne, Washington, DC: U.S. Government Printing Office, August 1990.
- . Perspectives on the Ownership of Capital Assets and the Realization of Gains, Prepared by Leonard Burman and Peter Ricoy. Washington, DC: May 1997.
- U.S. Congress, Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 1997*, 105th Congress, 1st Session. Washington, DC: U.S. Government Printing Office, December 17,1997, pp. 48-56.
- . Present Law and Background Information Related to the Taxation of Capital Gains. 112th Congress, 2nd session. Washington, DC, JCX-72-12, September 14, 2012.
- U.S. Department of the Treasury, Office of Tax Analysis. *Report to the Congress on the Capital Gains Tax Reductions of 1978*. Washington, DC: U.S. Government Printing Office, September 1985.

Wetzler, James W. "Capital Gains and Losses," *Comprehensive Income Taxation*, ed. Joseph Pechman. Washington, DC: The Brookings Institution, 1977, pp. 115-162.

Zhang, Yi, Kathleen A. Farrell, and Todd A. Brown. "Ex-dividend Day Price and Volume: The Case of 2003 Dividend Tax Cut," *National Tax Journal*, v. 61, no. 1, March 2008, pp. 105-127.

Zodrow, George R. "Economic Analysis of Capital Gains Taxation: Realizations, Revenues, Efficiency and Equity," *Tax Law Review*, v. 48, no. 3, pp. 419-527.

SURTAX ON UNEARNED INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	-	-
2012	-	-	-
2013	-16.5	-	-16.5
2014	-22.9	-	-22.9
2015	-23.8	-	-23.8

Authorization

Section 1411.

Description

Internal Revenue Code Section 1411 imposes a 3.8-percent unearned income Medicare contribution tax on the lesser of net investment income or the excess of modified adjusted gross income over the threshold amount of an individual. The threshold amount is \$250,000 in the case of a joint return or surviving spouse, \$125,000 in the case of a married individual filing a separate return, and \$200,000 in any other case. In the case of an estate or trust, the tax is 3.8 percent of the lesser of undistributed net investment income or the excess of adjusted gross income over the dollar amount at which the highest income tax bracket applicable to an estate or trust begins. As the provision raises revenue, this special rate of tax represents a negative tax expenditure over the 2010-2014 time period.

Impact

This provision raises the Medicare taxes paid by high-income individuals and estates and trusts.

Rationale

This provision was enacted as part of the Patient Protection and Affordable Care Act (P.L. 111-148), in combination with the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152) in order to raise revenue that is intended to offset increased expenditures for expanded health insurance coverage.

Assessment

According to the Urban Institute-Brookings Institution Tax Policy Center these provisions would affect only the top 2.6 percent of U.S. households; approximately 74 percent of the revenue would be generated by taxpayers making over \$1 million.

In addition, since this provision increases the taxes on some capital gains, the imposition of the tax may lead to a realization response. That is, capital gains taxes discourage capital gains realizations because capital gains are only taxed when realized. Consequently, taxpayers tend to hold on to appreciated assets they would otherwise sell. In this way, taxes on capital gains are said to produce a "lock-in" effect. This effect imposes efficiency losses because investors may be encouraged to hold suboptimal portfolios or forego investment opportunities with higher pre-tax returns. Changes in the capital gains tax rate, or the imposition of a surtax on unearned income, can exacerbate lock-in effects, and thus affect realizations.

Selected Bibliography

Harrington, Scott E., "U.S. Health-care Reform: The Patient Protection and Affordable Care Act," *The Journal of Risk and Insurance*, v. 33, n3, pp. 703-8, September 2010.

Keightley, Mark P., "The 3.8% Medicare Contribution Tax on Unearned Income, Including Real Estate Transactions," Library of Congress, CRS Report R41413, May, 2012.

Mulvey, Janemarie, "Health-Related Revenue Provisions in the Patient Protection and Affordable Care Act (PPACA)," Library of Congress, CRS Report R41128, January, 2012.

Tax Policy Center, "President's Proposal to Broaden the Medicare Hospital Insurance Tax Base: Distribution of Federal Tax Change by Cash Income Percentile, 2013," March 1, 2010.

U.S. Congress, Joint Committee on Taxation, Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010," As Amended, in Combination with the "Patient Protection and Affordable Care Act", committee print, 111th Cong., March 21, 2010, JCX-18-10, pp. 134-136.

EXCLUSION OF CAPITAL GAINS AT DEATH; CARRYOVER BASIS OF CAPITAL GAINS ON GIFTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	38.0	*	38.0
2012	36.3	-	36.3
2013	43.9	-	43.9
2014	54.3	-	54.3
2015	58.3	-	58.3

Authorization

Sections 1001, 1014, 1015, 1023, 1040, 1221, and 1222.

Description

A capital gains tax generally is imposed on the increased value of a capital asset (the difference between sales price and original cost of the asset) when the asset is sold or exchanged. This tax is not, however, imposed on the appreciation in value when ownership of the property is transferred as a result of the death of the owner or as a gift during the lifetime of the owner.

In the case of assets transferred at death, the heir's cost basis in the asset (the amount that he subtracts from sales price to determine gain if the asset is sold in the future) is generally the fair market value as of the date of decedent's death. Thus no income tax is imposed on appreciation occurring before the decedent's death, since the cost basis is increased by the amount of appreciation that has already occurred. In the case of gift transfers, however, the donee's basis in the property is the same as the donor's (usually the original cost of the asset). Thus, if the donee disposes of the property in a sale or exchange, the capital gains tax will apply to the pre-transfer appreciation. Tax on the gain is deferred, however, and may be forgiven entirely if the donee in turn passes on the property at death.

Assets transferred at death or by *inter vivos* gifts (gifts between living persons) may be subject to the federal estate and gift taxes, respectively, based upon their value at the time of transfer. The estate tax expired in 2010 and some gain is taxed at death, but the estate tax was reimposed in 2011.

Impact

The exclusion of capital gains at death is most advantageous to individuals who need not dispose of their assets to achieve financial liquidity. Generally speaking, these individuals tend to be wealthier. The deferral of tax on the appreciation involved, combined with the exemption for the appreciation before death, is a significant benefit for these investors and their heirs.

Failure to tax capital gains at death encourages lock-in of assets, which in turn means less current turnover of funds available for investment. In deciding whether to change his portfolio, an investor, in theory, takes into account the higher pre-tax rate of return he might obtain from the new investment, the capital gains tax he might have to pay if he changes his portfolio, and the capital gains tax his heirs might have to pay if he decides not to change his portfolio.

Often an investor in this position decides that, since his heirs will incur no capital gains tax on appreciation prior to the investor's death, he should transfer his portfolio unchanged to the next generation. The failure to tax capital gains at death and the deferral of tax tend to benefit high-income individuals (and their heirs) who have assets that yield capital gains.

Some insight into the distributional effects of this tax expenditure may be found by considering the distribution of current payments of capital gains tax, based on data provided by the Joint Committee on Taxation (released by the Democratic staff of the Ways and Means Committee, June 7, 2006). These taxes are heavily concentrated among high-income individuals. Of course, the distribution of capital gains taxes could be different from the distribution of taxes not paid because they are passed on at death, but the provision would always accrue largely to higher-income individuals who tend to hold most wealth.

Estimated Distribution of Capital Gains Taxes, 2005

Income Class	Percentage
Less than \$50,000	1.2
\$50,000-\$100,000	3.7
\$100,000-\$1,000,000	30.7
Over \$1,000,000	64.4

The primary assets that typically yield capital gains are corporate stock, real estate, and owner-occupied housing.

Rationale

The original rationale for nonrecognition of capital gains on *inter vivos* gifts or transfers at death is not indicated in the legislative history of any of the several interrelated applicable provisions. One current justification given for the treatment, however, is that death and *inter vivos* gifts are considered as inappropriate events to result in the recognition of income.

The Tax Reform Act of 1976 provided that the heir's basis in property transferred at death would be determined by reference to the decedent's basis. This carryover basis provision was not permitted to take effect and was repealed in 1980. The primary stated rationale for repeal was the concern that carryover basis created substantial administrative burdens for estates, heirs, and the Treasury Department.

Assessment

Failure to tax gains transferred at death is likely a primary cause of lock-in and its attendant efficiency costs; indeed, without the possibility of passing on gains at death without taxation, the lock-in effect would be greatly reduced.

The lower capital gains taxes that occur because of failure to tax capital gains at death can also affect efficiency through other means, primarily through the reallocation of resources between types of investments. Lower capital gains taxes may disproportionally benefit real estate investments and may cause corporations to retain more earnings than would otherwise be the case, thus resulting in efficiency losses. At the same time, lower capital gains taxes reduce the distortion that favors corporate debt over equity, which produces an efficiency gain.

Several problems have been associated with taxing capital gains at death. Among these are administrative problems, particularly for assets held for a very long time when heirs do not know the basis. In addition, taxation of capital gains at death could cause liquidity problems for some taxpayers, such as owners of small farms and businesses. Therefore most proposals for taxing capital gains at death combine substantial averaging provisions, deferred tax payment schedules, and a substantial deductible floor in determining the amount of gain to be taxed.

Selected Bibliography

Auerbach, Alan J. "Capital Gains Taxation and Tax Reform," *National Tax Journal*, v. 42. September, 1989, pp. 391-401.

—, Leonard E. Burman, and Jonathan Siegel. "Capital Gains Taxation and Tax Avoidance," in *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*, ed. Joel B. Slemrod. New York: Russell Sage, 2000.

Auten, Gerald. "Capital Gains Taxation." in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Bailey, Martin J. "Capital Gains and Income Taxation," *Taxation of Income From Capital*, ed. Arnold C. Harberger. Washington, DC: The Brookings Institution, 1969, pp. 11-49.

Bogart, W.T. and W.M. Gentry. "Capital Gains Taxes and Realizations: Evidence from Interstate Comparisons," *Review of Economics and Statistics*, v. 71, May 1995, pp. 267-282.

Burman, Leonard E. *The Labyrinth of Capital Gains Tax Policy*. Washington, DC: Brookings Institution, 1999.

Burman, Leonard E. and Peter D. Ricoy. "Capital Gains and the People Who Realize Them," *National Tax Journal*, v. 50, September 1997, pp.427-451.

Burman, Leonard E. and William C. Randolph. "Measuring Permanent Responses to Capital Gains Tax Changes In Panel Data," *American Economic Review*, v. 84, September, 1994.

—. "Theoretical Determinants of Aggregate Capital Gains Realizations," Manuscript, 1992.

David, Martin. Alternative Approaches to Capital Gains Taxation. Washington, DC: The Brookings Institution, 1968.

Fox, John O. "The Great Capital Gains Debate," Chapter 12, If Americans Really Understood the Income Tax, Boulder, CO: Westview Press, 2001.

Gravelle, Jane G. Can a Capital Gains Tax Cut Pay for Itself? Library of Congress, Congressional Research Service Report 90-161 RCO, March 23, 1990.

- —. Limits to Capital Gains Feedback Effects. Library of Congress. Congressional Research Service Report 91-250, March 15, 1991.
- —. Economic Effects of Taxing Capital Income, Chapter 6. Cambridge, MA: MIT Press, 1994.
- —. Capital Gains Tax Issues and Proposals: An Overview. Library of Congress, Congressional Research Service Report 96-769E, Updated August 30, 1999.
- —. Capital Gains Taxes, Innovation and Growth. Library of Congress, Congressional Research Service Report RL30040, July 14, 1999.
- —. Capital Gains Tax Options: Behavioral Responses and Revenues. Library of Congress, Congressional Research Service Report R41364, August 10, 2010.
- Hoerner, J. Andrew, ed. *The Capital Gains Controversy: A Tax Analyst's Reader*. Arlington, VA: Tax Analysts, 1992.
- Holt, Charles C. and John P. Shelton. "The Lock-In Effect of the Capital Gains Tax," *National Tax Journal*, v. 15. December 1962, pp. 357-352.

Hungerford, Thomas L. *The Economic Effects of Capital Gains Taxation*, Library of Congress, Congressional Research Service Report R40411, June 18, 2010.

Kiefer, Donald W. "Lock-In Effect Within a Simple Model of Corporate Stock Trading," *National Tax Journal*, v. 43. March, 1990, pp. 75-95.

Marples, Donald J. and Jane G. Gravelle. *Estate and Gift Taxes: Economic Issues*, Library of Congress, Congressional Research Service Report RL30600, December 4, 2009.

Minarik, Joseph. "Capital Gains." *How Taxes Affect Economic Behavior*, eds. Henry J. Aaron and Joseph A. Pechman. Washington, DC: Brookings Institution, 1983, pp. 241-277.

Surrey, Stanley S., et al., eds. "Taxing Capital Gains at the Time of a Transfer at Death or by Gift," *Federal Tax Reform for 1976*. Washington, DC: Fund for Public Policy Research, 1976, pp. 107-114.

- U.S. Congress, Congressional Budget Office. *Perspectives on the Ownership of Capital Assets and the Realization of Gains*. Prepared by Leonard Burman and Peter Ricoy. Washington, DC: May 1997.
- —. An Analysis of the Potential Macroeconomic Effects of the Economic Growth Act of 1998. Prepared by John Sturrock. Washington, DC: August 1, 1998.
- U.S. Congress, Senate Committee on Finance Hearing. *Estate and Gift Taxes: Problems Arising from the Tax Reform Act of 1976.* 95th Congress, 1st session, July 25, 1977.
- U.S. Department of the Treasury, Office of Tax Analysis. *Report to the Congress on the Capital Gains Tax Reductions of 1978*. Washington, DC: U.S. Government Printing Office, September, 1985.

Wagner, Richard E. *Inheritance and the State*. Washington, DC: American Enterprise Institute for Public Policy Research, 1977.

Wetzler, James W. "Capital Gains and Losses," *Comprehensive Income Taxation*, ed. Joseph Pechman, Washington, DC: The Brookings Institution, 1977, pp. 115-162.

Zodrow, George R. "Economic Analysis of Capital Gains Taxation: Realizations, Revenues, Efficiency and Equity," *Tax Law Review*, v. 48, no. 3, pp. 419-527.

DEFERRAL OF GAIN ON NON-DEALER INSTALLMENT SALES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-1.3	1.3	0.0
2012	1.3	6.0	7.3
2013	2.6	7.0	9.6
2014	2.7	6.9	9.6
2015	2.1	6.9	9.0

Note: The table shows a negative tax expenditure for individuals in 2011 because of economic conditions in 2008, 2009, and 2010.

Authorization

Sections 453 and 453A(b).

Description

An installment sale is a sale of property in which at least one payment will be received in a tax year later than the year in which the sale took place. Some taxpayers are allowed to report some sales of this kind for tax purposes under a special method of accounting, called the installment method, in which the gross profit from the sale is prorated over the years during which the payments are received.

This conveys a tax advantage compared to being taxed in full in the year of the sale, because the taxes that are deferred to future years have a time value (the amount of interest they could earn).

Use of the installment method was once widespread, but it has been severely curtailed in recent years. Under current law, it can be used only by persons who do not regularly deal in the property being sold (except for the sellers of farm property, timeshares, and residential building lots who may use the installment method but must pay interest on the deferred taxes). In 2004, a provision of the American Jobs Creation Act denied the installment sale treatment to readily tradeable debt.

For sales by non-dealers, interest must be paid to the government on the deferred taxes attributable to the portion of the installment sales that arise during and remain outstanding at the end of the tax year of more than \$5,000,000. Transactions where the sales price is less than \$150,000 do not count towards the \$5,000,000 limit. Interest payments offset the value of tax deferral, so this tax expenditure represents only the revenue loss from those transactions that give rise to interest-free deferrals.

Impact

Installment sale treatment constitutes a departure from the normal rule that gain is recognized when the sale of property occurs. The deferral of taxation permitted under the installment sale rules essentially furnishes the taxpayer an interest-free loan equal to the amount of tax on the gain that is deferred.

The benefits of deferral are currently restricted to those transactions by non-dealers in which the sales price is no more than \$150,000 and to the first \$5,000,000 of installment sales arising during the year, to sales of personal-use property by individuals, and to sales of farm property. (There are other restrictions on many types of transactions, such as in corporate reorganizations and sales of depreciable assets.)

Thus the primary benefit probably flows to sellers of farms, small businesses, and small real estate investments.

Rationale

The rationale for permitting installment sale treatment of income from disposition of property is to match the time of payment of tax liability with the cash flow generated by the disposition. It has usually been considered unfair, or at least impractical, to attempt to collect the tax when the cash flow is not available, and some form of installment sale reporting has been permitted since at least the Revenue Act of 1921. It has frequently been a source of complexity and controversy, however, and has sometimes been used in tax shelter and tax avoidance schemes.

Installment sale accounting was greatly liberalized and simplified in the Installment Sales Revision Act of 1980 (P.L. 96-471). It was significantly restricted by a complex method of removing some of its tax advantages in the Tax Reform Act of 1986, and it was repealed except for the limited uses in the Omnibus Budget Reconciliation Act of 1987. Further restrictions applicable to accrual method taxpayers were enacted in the Work Incentives Improvement Act of 1999 (P.L. 106-170). The 1999 Act prohibited most accrual basis taxpayers from using the installment method of accounting. Concern, however, in the small business community over these changes led to the passage, in December 2000, of the Installment Tax Correction Act of 2000 (P.L. 106-573). The 2000 Act repealed the restrictions on the installment method of accounting imposed by the 1999 Act. The repeal was made retroactive to the date of enactment of the 1999 change.

Assessment

The installment sales rules have always been pulled between two opposing goals: taxes should not be avoidable by the way a deal is structured, but they should not be imposed when the money to pay them is not available. Allowing people to postpone taxes simply by taking a note instead of cash in a sale leaves obvious room for tax avoidance.

Trying to collect taxes from taxpayers who do not have the cash to pay is administratively difficult and strikes many as unfair. After having tried many different ways of balancing these goals, lawmakers have settled on a compromise that denies the advantage of the method to taxpayers who would seldom have trouble raising the cash to pay their taxes (retailers, dealers in property, investors with large amounts of sales) and permits its use to small, non-dealer transactions (with "small" rather generously defined).

Present law results in modest revenue losses and probably has little effect on economic incentives.

Selected Bibliography

Esenwein, Gregg. Recent Tax Changes Affecting Installment Sales. Library of Congress, Congressional Research Service Report RS20432. Washington, DC: January 2002.

U.S. Congress, Joint Committee on Taxation. Overview of the Issues Relating to the Modification of the Installment Sales Rules by the Ticket to Work Incentives Improvement Act of 1999, Report JCX-15-00, February 2000.

- . General Explanation of Tax Legislation Enacted in the 106th Congress. JCS-2-01. April 2001. p. 176.
- U.S. Congress, House. *Omnibus Budget Reconciliation Act of 1987*, Conference Report to Accompany H.R. 3545. 100th Congress, 1st session, Report 100-495, pp. 926-931.
- . Committee on Ways and Means. *Installment Sales Revision Act of 1980*, Report to Accompany H.R. 6883. 98th Congress, 2nd session, Report 96-1042.
- U.S. Congress, Joint Committee on Taxation. *Comparison of Certain Provisions of H.R. 4520 As Passed by The House of Representatives and As Amended by The Senate: Revenue Provisions*. Report JCX-64-04, September 2004, p. 57.
- U.S. Department of the Treasury, Internal Revenue Service. *Installment Sales*. Publication 537, for use in preparing 2005 returns.

DEFERRAL OF GAIN ON LIKE-KIND EXCHANGES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.6	1.3	1.9
2012	1.0	1.7	2.7
2013	1.0	2.0	3.0
2014	1.3	2.3	3.6
2015	1.4	2.6	4.0

Authorization

Section 1031.

Description

When business or investment property is exchanged for property of a "like-kind," no gain or loss is recognized on the exchange and therefore no tax is paid at the time of the exchange on any appreciation. This is in contrast to the general rule that any sale or exchange for money or property is a taxable event.

It is also an exception to the rules allowing tax-free exchanges when the property is "similar or related in service or use," the much stricter standard applied in other areas, such as replacing condemned property (section 1033). The latter is not considered a tax expenditure, but the postponed tax on appreciated property exchanged for "like-kind" property is.

Impact

The like-kind exchange rules have been liberally interpreted by the courts to allow tax-free exchanges of property of the same general type but of very different quality and use. All real estate, in particular, is considered

"like-kind," allowing a retiring farmer from the Midwest to swap farm land for a Florida apartment building or a right to pump water tax free.

The provision is very popular with real estate interests, some of whom specialize in arranging property exchanges. It is useful primarily to persons who wish to alter their real estate holdings without paying tax on their appreciated gain.

Stocks and financial instruments are generally not eligible for this provision, so it is not useful for rearranging financial portfolios. As an exception to this rule, the Food, Conservation, and Energy Act of 2008 (P.L. 110-246) provides that the general exclusion from section 1031 treatment for stocks shall not apply to shares in a qualified mutual ditch, reservoir, or irrigation company.

Rationale

The general rationale for allowing tax-free exchanges is that the investment in the new property is merely a continuation of the investment in the old. A tax-policy rationale for going beyond this, to allowing tax-free adjustments of investment holdings to more advantageous positions, does not seem to have been offered. It may be that this was an accidental outgrowth of the original rule.

A provision allowing tax-free exchanges of like-kind property was included in the first statutory tax rules for capital gains in the Revenue Act of 1921 and has continued in some form until today. Various restrictions over the years took many kinds of property and exchanges out of its scope, but the rules for real estate, in particular, were broadened over the years by court decisions. In moves to reduce some of the more egregious uses of the rules, the Deficit Reduction Act of 1984 set time limits on completing exchanges and the Omnibus Budget Reconciliation Act of 1989 outlawed tax-free exchanges between related parties.

Among more recent legislative changes was a provision of the American Jobs Creation Act of 2004, as amended in the Gulf Opportunity Zone Act of 2005, affecting the recognition of a gain on a principal residence acquired in a like-kind exchange. The exclusion for gain on the sale of a principal residence no longer applies if the principal residence was acquired in a like-kind exchange within the past five years. In effect, this requires the taxpayer to hold the exchanged property for a full five years before it would qualify as a principal residence.

Assessment

From an economic perspective, the failure to tax appreciation in property values as it occurs defers tax liability and thus offers a tax benefit. (Likewise, the failure to deduct *declines* in value is a tax penalty.) Continuing the "nonrecognition" of gain, and thus the tax deferral, for a longer period by an exchange of properties adds to the tax benefit.

This treatment does, however, both simplify transactions and make it less costly for businesses and investors to replace property. Taxpayers gain further benefit from the loose definition of "like-kind," because they can also switch their property holdings to types they prefer without tax consequences. This might be justified as reducing the inevitable bias a tax on capital gains causes against selling property, but it is difficult to argue for restricting the relief primarily to those taxpayers engaged in sophisticated real estate transactions.

Selected Bibliography

Carnes, Gregory A., and Ted D. Englebrecht. "Like-kind Exchanges — Recent Developments, Restrictions, and Planning Opportunities," *CPA Journal*. January 1991, pp. 26-33.

Esenwein, Gregg A. *The Sale of a Principal Residence Acquired Through a Like-Kind Exchange*. Library of Congress, Congressional Research Service Report RS22113. Washington DC: 2005.

- U.S. Congress, Congressional Budget Office. *Budget Options*. February 2001, p. 423.
- U.S. Congress, House Committee on Ways and Means. *Omnibus Budget Reconciliation Act of 1989*. Conference Report to Accompany H.R. 3299, Report 101-386. November 21, 1989, pp. 613-614.
- U.S. Congress, Joint Committee on Taxation. Study of the Overall State of the Federal Tax System and Recommendations for Simplification, Pursuant to Section 8022(3)(B) of the Internal Revenue Code of 1986, Volume II, JCS-3-01, pp. 300-305, April 2001.
- . Description of Revenue Provisions to Be Considered in Connection With the Markup of the Miscellaneous Trade and Technical Corrections Act of 1999, JCS-2-00, p. 494. March 2000.
- . Description of Possible Options to Increase Revenues Prepared for the Committee On Ways and Means. JCS-17-87, June 25, 1987, pp. 240-241.
- . General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984. JCS-41-84, December 31, 1984, pp. 243-247.

Woodrum, William L., Jr. "Structuring an Exchange of Property to Defer Recognition of Gain," *Taxation for Accountants*. November 1986, pp. 334-339.

- U.S. Congress, Joint Committee on Taxation. *Comparison of Certain Provisions of H.R. 4520 As Passed by The House of Representatives and As Amended by the Senate: Revenue Provisions*, Report JCX-64-04, September 2004, p. 25.
- U.S. Department of the Treasury, Internal Revenue Service. Sales and Other Dispositions of Assets. Publication 544. for use in preparing 2005 returns.

DEPRECIATION OF BUILDINGS OTHER THAN RENTAL HOUSING IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

_				
	Fiscal year	Individuals	Corporations	Total
	2011	0.1	0.2	0.3
	2012	0.2	0.2	0.4
	2013	0.2	0.3	0.5
	2014	0.2	0.3	0.5
	2015	0.2	0.2	0.4

Note: Extensions may be enacted in 2012, or possibly 2013, for some temporary provisions, with costs largely due to a 15-year write-off for restaurant and leasehold improvements, and a small about for also motorsports complexes.

Authorization

Section 167 and 168.

Description

Taxpayers are allowed to deduct the costs of acquiring depreciable assets (assets that wear out or become obsolete over a period of years) as depreciation deductions. The tax code currently allows new buildings other than rental housing to be written off over 39 years, using a "straight line" method where equal amounts are deducted in each period. There is also a prescribed 40-year write-off period for these buildings under the alternative minimum tax (also based on a straight-line method). Improvements required for a new leasehold for a non-residential structure, for certain restaurant improvements, and for certain retail improvements made at least three years after original construction may be depreciated over 15 years. This provision applies through 2011. Motorsports complexes (tracks and other land

improvements and support facilities) are depreciated over seven years using a double declining balance method (where a rate twice as large as straight line is applied to the undepreciated balance, with a switch to straightline midway through the period). About half the revenue cost is due to the special provisions, primarily the treatment of leasehold improvements. These provisions are included in the "extenders" provisions, which are usually extended each year.

The tax expenditure measures the revenue loss from current depreciation deductions in excess of the deductions that would have been allowed under this longer 40-year period. The current revenue effects also reflect different write-off methods and lives prior to the 1993 revisions, which set the 39-year life, since many buildings pre-dating that time are still being depreciated. The revenue loss is unusually small for FY2009-FY2013 because of the recession.

Prior to 1981, taxpayers were generally offered the choice of using the straight-line method or accelerated methods of depreciation, such as double-declining balance and sum-of-years digits, in which greater amounts are deducted in the early years. Non-residential buildings were restricted in 1969 to 150-percent declining balance (used buildings were restricted to straight-line). The period of time over which deductions were taken varied with the taxpayer's circumstances.

Beginning in 1981, the tax law prescribed specific write-offs which amounted to accelerated depreciation over periods varying from 15 to 19 years. In 1986, all depreciation on nonresidential buildings was calculated on a straight-line basis over 31.5 years, and that period was increased to 39 years in 1993.

Example: Suppose a building with a basis of \$10,000 was subject to depreciation over 39 years. Depreciation allowances would be constant at $1/39 \times 10,000 = 257 . For a 40-year life the write-off would be \$250 per year. The tax expenditure in the first year would be measured as the difference between the tax savings of deducting \$250, instead of \$257, or \$7.

Impact

Given that depreciation methods that are faster than straight-line allow for larger deductions in the early years of the asset's life and smaller depreciation deductions in the later years, and because shorter useful lives allow quicker recovery, accelerated depreciation results in a deferral of tax liability.

It is a tax expenditure to the extent it is faster than economic (i.e., actual) depreciation, and evidence indicates that the economic decline rate for non-residential buildings is much slower than that reflected in tax depreciation methods.

The direct benefits of accelerated depreciation accrue to owners of buildings, particularly to corporations. The benefit is estimated as the tax saving resulting from the depreciation deductions in excess of straight-line depreciation. Benefits to capital income tend to concentrate in the higher-income classes (see discussion in the Introduction).

Rationale

Prior to 1954, depreciation policy had developed through administrative practices and rulings. The straight-line method was favored by IRS and generally used. Tax lives were recommended for assets through "Bulletin F," but taxpayers were also able to use a facts and circumstances justification.

A ruling issued in 1946 authorized the use of the 150-percent declining balance method. Authorization for it and other accelerated depreciation methods first appeared in legislation in 1954 when the double declining balance and other methods were enacted. The discussion at that time focused primarily on whether the value of machinery and equipment declined faster in their earlier years. When the accelerated methods were adopted, however, real property was included as well.

By the 1960s, most commentators agreed that accelerated depreciation resulted in excessive allowances for buildings. The first restriction on depreciation was to curtail the benefits that arose from combining accelerated depreciation with lower capital gains taxes when the building was sold

In 1964, 1969, and 1976 various provisions to "recapture" accelerated depreciation as ordinary income in varying amounts when a building was sold were enacted. In 1969, depreciation for nonresidential structures was restricted to 150-percent declining balance methods (straight-line for used buildings).

In the Economic Recovery Tax Act of 1981 (P.L. 97-34), buildings were assigned specific write-off periods that were roughly equivalent to 175-

percent declining balance methods (200 percent for low-income housing) over a 15-year period under the Accelerated Cost Recovery System (ACRS). These changes were intended as a general stimulus to investment.

Taxpayers could elect to use the straight-line method over 15 years, 35 years, or 45 years. The Deficit Reduction Act of 1984 (P.L. 98-369) increased the 15-year life to 18 years; in 1985, it was increased to 19 years.) The recapture provisions would not apply if straight-line methods were originally chosen. The acceleration of depreciation that results from using the shorter recovery period under ACRS was not subject to recapture as accelerated depreciation.

The current straight-line treatment was adopted as part of the Tax Reform Act of 1986 (P.L. 99-514), which lowered tax rates and broadened the base of the income tax. A 31.5-year life was adopted at that time; it was increased to 39 years by the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66).

In 2002, certain qualified leasehold improvements in non-residential buildings were made eligible for a temporary bonus depreciation (expiring after 2004) allowing 30 percent of the cost to be deducted when incurred. The percentage was increased to 50 percent in 2003. Leasehold improvements were also included in the temporary one year 50 percent bonus depreciation for 2008, enacted by Emergency Economic Stabilization Act of 2008, the fiscal stimulus bill passed in February 2008 (P.L. 110-185).

The provision allowing a 15-year recovery period for qualified leasehold improvements and restaurant improvements was adopted in the American Jobs Creation Act of 2004 (P.L. 108-357) but suspended after 2005. The arguments made for this treatment were that such investments had a shorter useful life than buildings in general. The Tax Relief and Health Care Act of 2006 (P. L. 109-432) extended the provision through 2007 and the Emergency Economic Stabilization Act (P.L.110-343), enacted in October 2008, extended it through 2009. The seven-year life for the motorsports complex had been in the regulations for some time, assigning these assets to the category of amusement park assets. When the Treasury reconsidered the appropriateness of this classification, Congress in 2004 made the seven-year treatment mandatory through 2007; this provision was also extended through 2009 by the Emergency Economic Stabilization Act of 2008 (P.L. 110-143). This legislation also included retail improvement property in the 15 year life. Both provisions were extended through 2011 by

the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312).

Assessment

Evidence suggests that the rate of economic decline of rental structures is much slower than the rates allowed under current law, and this provision causes a lower effective tax rate on such investments than would otherwise be the case. This treatment in turn tends to increase investment in nonresidential structures relative to other assets, although there is considerable debate about how responsive these investments are to tax subsidies.

At the same time, the more rapid depreciation roughly offsets the understatement of depreciation due to the use of historical cost basis depreciation, assuming inflation is at an approximate rate of two percent. Moreover, many other assets are eligible for accelerated depreciation as well, and the allocation of capital depends on the relative treatment.

Much of the previous concern about the role of accelerated depreciation in encouraging tax shelters in commercial buildings has faded because the current depreciation provisions are less rapid than those previously in place and because there is a restriction on the deduction of passive losses.

Selected Bibliography

Auerbach, Alan, and Kevin Hassett. "Investment, Tax Policy, and the Tax Reform Act of 1986," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986*, ed. Joel Slemrod. Cambridge, Mass: The MIT Press, 1990, pp. 13-49.

Board of Governors of the Federal Reserve System. Public Policy and Capital Formation. April 1981.

Brannon, Gerard M. "The Effects of Tax Incentives for Business Investment: A Survey of the Economic Evidence," U.S. Congress, Joint Economic Committee, *The Economics of Federal Subsidy Programs*, Part 3: "Tax Subsidies." July 15, 1972, pp. 245-268.

Brazell, David W. and James B. Mackie III. "Depreciation Lives and Methods: Current Issues in the U.S. Capital Cost Recovery System," *National Tax Journal*, v. 53, September 2000, pp. 531-562.

Break, George F. "The Incidence and Economic Effects of Taxation," *The Economics of Public Finance*. Washington, DC: Brookings Institution, 1974.

Burman, Leonard E., Thomas S. Neubig, and D. Gordon Wilson. "The Use and Abuse of Rental Project Models," Compendium of Tax Research

1987, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 307-349.

Cummins, Jason G., Kevin Hassett and R. Glenn Hubbard. "Have Tax Reforms Affected Investment?" in James M. Poterba, *Tax Policy and The Economy*, v. 9, Cambridge: MIT Press, 1994.

— . A Reconsideration of Investment Behavior Using Tax Reforms as Natural Experiments, Brookings Papers on Economic Activity no. 2, 1994, pp. 1-74.

Deloitte and Touche. Analysis of the Economic Depreciation of Structure, Washington, DC: June 2000.

Feldstein, Martin. "Adjusting Depreciation in an Inflationary Economy: Indexing Versus Acceleration," *National Tax Journal*, v. 34. March 1981, pp. 29-43.

Follain, James R., Patric H. Hendershott, and David C. Ling, "Real Estate Markets Since 1980: What Role Have Tax Changes Played?" *National Tax Journal*, v. 45, September 1992, pp. 253-266.

Fromm, Gary, ed. *Tax Incentives and Capital Spending*. Washington, DC: The Brookings Institution, 1971.

Fullerton, Don, Robert Gillette, and James Mackie, "Investment Incentives Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 131-172.

Fullerton, Don, Yolanda K. Henderson, and James Mackie, "Investment Allocation and Growth Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 173-202.

Gravelle, Jane G. "Differential Taxation of Capital Income: Another Look at the Tax Reform Act of 1986," *National Tax Journal*, v. 63, December 1989, pp. 441-464.

- . Depreciation and the Tax Treatment of Real Estate. Library of Congress, Congressional Research Service Report RL30163. Washington, DC: October 25, 2000.
- . "Economic Effects of Investment Subsidies," In *Tax Reform in Open Economies: International and Country Perspectives*, Ed. by Iris Claus, Norman Gemmell, Michelle Harding, and David White, Northhampton, MA, Edgar Elgar, 2010.
- . Economic Effects of Taxing Capital Income, Chapter 6. Cambridge, MA: MIT Press, 1994.
- . "Reducing Depreciation Allowances to Finance a Lower Corporate Tax Rate." *National Tax Journal*, v. 64, December 2011, pp. 1039-1052.
- . Tax Reform Options: Incentives for Capital Investment and Manufacturing. Statement before the U.S. Senate Finance Committee, March 6. 2012.

http://www.finance.senate.gov/imo/media/doc/Testimony%20of%20Jane%20Gravelle.pdf.

— . "Whither Tax Depreciation?" *National Tax Journal*, v. 54, September, 2001, pp. 513-526.

Harberger, Arnold. "Tax Neutrality in Investment Incentives," *The Economics of Taxation*, eds. Henry J. Aaron and Michael J. Boskin. Washington, DC: The Brookings Institution, 1980.

Hulten, Charles, ed. *Depreciation, Inflation, and the Taxation of Income From Capital*. Washington, DC: Urban Institute, 1981.

Hulten, Charles R., and Frank C. Wykoff. "Issues in Depreciation Measurement." *Economic Inquiry*, v. 34, January 1996, pp. 10-23.

Jorgenson, Dale W. "Empirical Studies of Depreciation." *Economic Inquiry*, v. 34, January 1996, pp. 24-42.

Mackie, James. "Capital Cost Recovery," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Nadiri, M. Ishaq. and Ingmar R. Prucha. "Depreciation Rate Estimation of Physical and R&D Capital." *Economic Inquiry*, v. 34, January 1996, pp. 43-56.

Taubman, Paul and Robert Rasche. "Subsidies, Tax Law, and Real Estate Investment," U.S. Congress, Joint Economic Committee, *The Economics of Federal Subsidy Program*," Part 3: "Tax Subsidies." July 15, 1972, pp. 343-369.

- U.S. Congress, Congressional Budget Office. Real Estate Tax Shelter Subsidies and Direct Subsidy Alternatives. May 1977.
- U.S. Congress, Joint Committee on Taxation. Estimated Revenue Effects Of The Revenue Provisions Contained In The "American Workers, State And Business Relief Act Of 2010, JCX-9-10, March 10, 2010.
- . Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986. May 4, 1987, pp. 89-110.
- U.S. Department of the Treasury. Report to the Congress on Depreciation Recovery Periods and Methods. Washington, DC: June 2000.

DEPRECIATION ON EQUIPMENT IN EXCESS OF ALTERNATIVE DEPRECIATION SYSTEM

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	23.4	52.3	75.7
2012	10.5	24.9	35.4
2013	-2.4	-6.5	-8.9
2014	(1)	-0.7	-0.7
2015	5.3	5.3	10.6

⁽¹⁾ Negative tax expenditure of less than \$50 million.

Note: Bonus depreciation expires at the end of 2012, but may be extended.

Authorization

Section 167 and 168.

Description

Taxpayers are allowed to deduct the cost of acquiring depreciable assets (assets that wear out or become obsolete over a period of years) as depreciation deductions. How quickly the deductions are taken depends on the period of years over which recovery occurs and the method used. Straight-line methods allow equal deductions in each year; accelerated methods, such as declining balance methods, allow larger deductions in the earlier years.

Equipment is currently divided into six categories to be depreciated over 3, 5, 7, 10, 15, and 20 years. Double declining balance depreciation is allowed for all but the last two classes, which are restricted to 150 percent declining balance. A double declining balance method allows twice the straight-line rate to be applied in each year to the remaining undepreciated

balance; a 150-percent declining balance rate allows 1.5 times the straightline rate to be applied in each year to the remaining undepreciated balance. At some point, the taxpayer can switch to straight-line- write off the remaining undepreciated cost in equal amounts over the remaining life.

The 1986 law also prescribed a depreciation system for the alternative minimum tax, which applies to a broader base. The alternative depreciation system requires recovery over the midpoint of the Asset Depreciation Range, using straight-line depreciation. The Asset Depreciation Range was the set of tax lives specified before 1981 and these lives are longer than the lives allowed under the regular tax system.

This tax expenditure measures the difference between regular tax depreciation and the alternative depreciation system. The tax expenditure also reflects different write-off periods and lives for assets acquired prior to the 1986 provisions. For most of these older assets, regular tax depreciation has been completed, so that the effects of these earlier vintages of equipment would be to enter them as a revenue gain rather than as a loss.

In the past, taxpayers were generally offered the choice of using the straight-line method or accelerated methods of depreciation such as double-declining balance and sum-of-years digits, in which greater amounts are deducted in the early years. Tax lives varied across different types of equipment under the Asset Depreciation Range System, which prescribed a range of tax lives. Equipment was restricted to 150-percent declining balance by the 1981 Act, which shortened tax lives to five years.

Example: Consider a \$10,000 piece of equipment that falls in the five-year class (with double declining balance depreciation) with an eight-year midpoint life. In the first year, depreciation deductions would be 2/5 times \$10,000, or \$4,000. In the second year, the basis of depreciation is reduced by the previous year's deduction to \$6,000, and depreciation would be \$2,400 (2/5 times \$6,000).

Depreciation under the alternative system would be 1/8th in each year, or \$1,250. Thus, the tax expenditure in year one would be the difference between \$4,000 and \$1,250, multiplied by the tax rate. The tax expenditure in year two would be the difference between \$2,400 and \$1,250 multiplied by the tax rate.

Fifty percent of investment in advanced mine safety equipment may be expensed from the date of enactment of the Tax Relief and Health Care Act

(P. L. 109-432) in December 2006 and the provision was extended in the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008. This provision was extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312).

Equipment placed into service in 2008-2012 will be eligible for bonus depreciation, which allows half of the cost to be deducted when incurred (expensed). For the period after September 8, 2010 through the end of 2011 100% of the cost may be deducted when incurred. Bonus depreciation is the main reason for the revenue loss pattern.

Impact

Due to the fact that depreciation methods that are faster than straight-line allow for larger depreciation deductions in the early years of the asset's life and smaller deductions in the later years, and because shorter useful lives allow quicker recovery, accelerated depreciation results in a deferral of tax liability. It is a tax expenditure to the extent it is faster than economic (*i.e.*, actual) depreciation, and evidence indicates that the economic decline rate for equipment is much slower than that reflected in tax depreciation methods.

The direct benefits of accelerated depreciation accrue to owners of assets and particularly to corporations. The benefit is estimated as the tax saving resulting from the depreciation deductions in excess of straight-line depreciation under the alternative minimum tax. Benefits to capital income tend to concentrate in the higher-income classes (see discussion in the Introduction).

Rationale

Prior to 1954, depreciation policy had developed through administrative practices and rulings. The straight-line method was favored by IRS and generally used. Tax lives were recommended for assets through "Bulletin F," but taxpayers were also able to use a facts and circumstances justification.

A ruling issued in 1946 authorized the use of the 150-percent declining balance method. Authorization for it and other accelerated depreciation methods first appeared in legislation in 1954 when the double-declining balance and other methods were enacted. The discussion at that time focused primarily on whether the value of machinery and equipment declined faster in its earlier years.

In 1962, new tax lives for equipment assets were prescribed that were shorter than the lives existing at that time. In 1971, the Asset Depreciation Range System was introduced by regulation and confirmed through legislation. This system allowed taxpayers to use lives up to 20 percent shorter or longer than those prescribed by regulation.

In the Economic Recovery Act of 1981 (P.L. 97-34), equipment assets were assigned fixed write-off periods which corresponded to 150-percent declining balance over five years (certain assets were assigned three-year lives). These changes were intended as a general stimulus to investment and to simplify the tax law by providing for a single write-off period. The method was eventually to be phased into a 200-percent declining balance method, but the 150-percent method was made permanent by the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248). The current treatment was adopted as part of the Tax Reform Act of 1986 (P.L. 99-514), which lowered tax rates and broadened the base of the income tax.

A temporary provision allowed a write-off of 30 percent of the cost in the first year (for 36 months beginning September 10th, 2001), adopted in 2002 as an economic stimulus. The percentage was increased to 50 percent in 2003 and expired in 2004. This provision, referred to as bonus depreciation, was also adopted as part of the fiscal stimulus package in February 2008, and was effective for 2008. Bonus depreciation was extended through 2009 by the American Recovery and Reinvestment Act (P.L. 111-5), through 2010 by the Small Business Jobs Act of 2010 (P.L.111-240), and through 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312).

Assessment

Evidence suggests that the rate of economic decline of equipment is much slower than the rates allowed under current law, and this provision causes a lower effective tax rate on such investments than would otherwise be the case. The effect of these benefits on investment in equipment is uncertain, although more studies find that equipment tends to be somewhat more responsive to tax changes than do structures. Equipment did not, however, appear to be very responsive to the temporary expensing provisions adopted in 2003 and expanded in 2003.

The more rapid depreciation more than offsets the understatement of depreciation due to the use of historical cost basis depreciation, if inflation is at a rate of about two percent or so for most assets. Under these

circumstances the effective tax rate on equipment is below the statutory tax rate and the tax rates of most assets are relatively close to the statutory rate. Thus, equipment tends to be favored relative to other assets and the tax system causes a misallocation of capital.

Some arguments are made that investment in equipment should be subsidized because it is more "high tech;" conventional economic theory suggests, however, that tax neutrality is more likely to ensure that investment is allocated to its most productive use.

Selected Bibliography

Auerbach, Alan, and Kevin Hassett. "Investment, Tax Policy, and the Tax Reform Act of 1986," *Do Taxes Matter: The Impact of the Tax Reform Act of 1986*, ed. Joel Slemrod. Cambridge, Mass: MIT Press, 1990, pp. 13-49.

Billings, B. Anthony, Buagu Musazi, and Melvin Houston, "Bonus Depreciation Tax Incentives May Not Work for Needy Firms," *Tax Notes*, February 11, 2008, pp 735-737.

Board of Governors of the Federal Reserve System. *Public Policy and Capital Formation*. April 1981.

Brannon, Gerard M. "The Effects of Tax Incentives for Business Investment: A Survey of the Economic Evidence," U.S. Congress, Joint Economic Committee, *The Economics of Federal Subsidy Programs*, Part 3: "Tax Subsidies." July 15, 1972, pp. 245-268.

Brazell, David W. and James B. Mackie III. "Depreciation Lives and Methods: Current Issues in the U.S. Capital Cost Recovery System," *National Tax Journal*, v. 53, September 2000, pp. 531-562.

Break, George F. "The Incidence and Economic Effects of Taxation," *The Economics of Public Finance*. Washington, DC: The Brookings Institution, 1974.

Clark, Peter K. *Tax Incentives and Equipment Investment*, Brookings Papers on Economic Activity no. 1, 1994, pp. 317-339.

Cohen, Darryl and Jason Cummins. A Retrospective Evaluation of the Effects of Temporary Partial Expensing, Federal Reserve Board Staff Working Paper 2006-19, Washington, D.C., April, 2006.

Cummins, Jason G., Kevin Hasset and R. Glenn Hubbard. "Have Tax Reforms Affected Investment?" in James M. Poterba, *Tax Policy and The Economy*, v. 9, Cambridge: MIT Press, 1994.

— . A Reconsideration of Investment Behavior Using Tax Reforms as Natural Experiments, Brookings Papers on Economic Activity, no. 2, 1994, pp. 1-74.

Dunn, Wendy E., Mark E. Doms, Stephen D. Oliner, and Daniel E. Sichel. "How Fast Do Personal Computers Depreciate? Concepts and New

Estimates," National Bureau of Economic Research Working Paper No. 10521, Cambridge, MA., May 2004.

Feldstein, Martin. "Adjusting Depreciation in an Inflationary Economy: Indexing Versus Acceleration," *National Tax Journal*, v. 34, March 1981, pp. 29-43.

Fullerton, Don, Robert Gillette, and James Mackie. "Investment Incentives Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 131-172.

Fullerton, Don, Yolanda K. Henderson, and James Mackie. "Investment Allocation and Growth Under the Tax Reform Act of 1986," *Compendium of Tax Research 1987*, Office of Tax Analysis, Department of The Treasury. Washington, DC: U.S. Government Printing Office, 1987, pp. 173-202.

Gravelle, Jane G. "Differential Taxation of Capital Income: Another Look at the Tax Reform Act of 1986," *National Tax Journal*. v. 63, December 1989, pp. 441-464.

- . Depreciation and the Tax Treatment of Real Estate. Library of Congress, Congressional Research Service Report RL30163. Washington, DC: October 25, 2000.
- . Economic Effects of Taxing Capital Income. Chapters 3 and 5. Cambridge, MA: MIT Press, 1994.
- . "Economic Effects of Investment Subsidies," In *Tax Reform in Open Economies: International and Country Perspectives*, ed. by Iris Claus, Norman Gemmell, Michelle Harding, and David White Northhampton, MA, Edgar Elgar, 2010.
- . "Reducing Depreciation Allowances to Finance a Lower Corporate Tax Rate," *National Tax Journal*, v. 64. December 2011, pp. 1039-1052.
- . Tax Reform Options: Incentives for Capital Investment and Manufacturing. Statement before the U.S. Senate Finance Committee, March 6, 2012.

http://www.finance.senate.gov/imo/media/doc/Testimony%20of%20Jane%20Gravelle.pdf.

— . "Whither Tax Depreciation?" *National Tax Journal*, vol. 54, September, 2001, pp. 513-526.

Harberger, Arnold, "Tax Neutrality in Investment Incentives," *The Economics of Taxation*, eds. Henry J. Aaron and Michael J. Boskin. Washington, DC: The Brookings Institution, 1980, pp. 299-313.

Hendershott, Patric and Sheng-Cheng Hu, "Investment in Producers' Durable Equipment," *How Taxes Affect Economic Behavior*, eds. Henry J. Aaron and Joseph A. Pechman. Washington, DC: Brookings Institution, 1981, pp. 85-129.

House, Christopher and Matthew Shapiro, *Temporary Investment Tax Incentives: Theory With Evidence from Bonus Depreciation*, American Economic Review, Vo. 98, June 2008, pp. 737-768.

Hulten, Charles, ed. Depreciation, Inflation, and the Taxation of Income From Capital. Washington, DC: The Urban Institute, 1981.

Hulten, Charles R., and Frank C. Wykoff. "Issues in Depreciation Measurement." *Economic Inquiry*, v. 34, January 1996, pp. 10-23.

Jorgenson, Dale W. "Empirical Studies of Depreciation." *Economic Inquiry*, v. 34, January 1996, pp. 24-42.

Knittel, Matthew. Corporate Response to Bonus Depreciation: Bonus Depreciation for Tax Years 2002-2004, U.S. Department of Treasury, Office of Tax Analysis Working Paper 98, May 2007.

Mackie, James. "Capital Cost Recovery," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Nadiri, M. Ishaq, and Ingmar R. Prucha. "Depreciation Rate Estimation of Physical and R&D Capital." *Economic Inquiry*, v. 34, January 1996, pp. 43-56.

Oliner, Stephen D. "New Evidence on the Retirement and Depreciation of Machine Tools." *Economic Inquiry*, v. 34, January 1996, pp.57-77.

- U.S. Congress, Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986. May 4, 1987, pp. 89-110.
- Estimates of Budget Effects of the Revenue Provisions Contained in Senate Amendment H.R. 5297, The Small Business Jobs Act of 2010, JCX-48-10.September 16, 2010.
- U.S. Department of the Treasury. Report to the Congress on Depreciation Recovery Periods and Methods. Washington, DC: June 2000.

Commerce and Housing: Other Business and Commerce

EXPENSING OF DEPRECIABLE BUSINESS PROPERTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	4.6	1.1	5.7
2012	5.1	1.2	6.3
2013	0.2	$\binom{1}{2}$	0.2
2014	-1.5	-0.3	-1.8
2015	-0.7	-0.2	-0.9

⁽¹)Positive tax expenditure of less than \$50 million

Authorization

Section 179.

Description

Within certain limitations, a business taxpayer (other than a trust, estate, or certain corporate lessors) may elect to deduct as a current expense the cost of qualifying property in the tax year when it is placed in service. (The allowance is larger for firms located in so-called Enterprise and Empowerment Zones, and Renewal Communities.) Under current law, the maximum allowance is set at \$500,000 in 2010 and 2011; it was scheduled to reset at \$25,000 in 2012 and thereafter, its level in 2003 before the enactment of the Jobs and Growth Tax Relief and Reconciliation Act of 2003. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) set the limit at \$125,000 for 2012. For qualified property placed in service in certain enterprise zones and renewal properties, the maximum allowance is \$35,000 greater (or \$535,000 in 2010 and 2011). Note, however, that for equipment P.L. 111-312 allows an unlimited expensing for equipment between placed in service after September 8, 2010 through 2011.

For the most part, qualifying property is new and used machinery, equipment, and off-the-shelf computer software purchased for use in the active conduct of a trade or business. Software is eligible for expensing through 2011. With a few exceptions, real property such as buildings and their structural components do not qualify for the allowance. Under one exception, a taxpayer may expense up to \$250,000 of the cost of qualified leasehold improvements and qualified retail and restaurant improvement property placed in service in 2010 and 2011.

The amount that may be expensed is subject to two limitations: an investment limitation and an income limitation. Under the former, the maximum expensing allowance is reduced, dollar for dollar, by the amount by which the total cost of qualifying property a taxpayer places in service in a tax year exceeds a specified amount. In 2010 and 2011, this amount is set at \$2,000,000. (The phaseout threshold is higher for property placed in service in empowerment and enterprise zones and renewal communities.) In 2012 the threshold will rests at \$500,000 and thereafter at \$200,000. Because of the dollar limitation, none of the cost of qualifying property placed in service outside the designated areas in 2010 and 2011 may be expensed once the total cost of the property reaches \$2,500,000. Under the income limitation, the expensing allowance cannot exceed a taxpayer's taxable income from the active conduct of the trade or business in which the qualifying property is used. Any expensing allowance lost because of the investment limitation may not be carried forward, but the opposite is true if an allowance is lost because of the income limitation.

Taxpayers that cannot take advantage of the expensing allowance because of the limitations are unaffected through 2011 because bonus depreciation rules allow expensing, and they have the option in 2012 of taking a 50 percent bonus depreciation allowance. Basically, the same set of assets is eligible for both expensing allowances. A taxpayer wishing to take the expensing allowance and the bonus depreciation allowance must do so in a prescribed order. The section 179 allowance has to be taken first, lowering the taxpayer's basis in the property by that amount. Then the bonus depreciation allowance can be taken, resulting in a further reduction in the basis. Finally, whatever regular depreciation allowance is permitted under current law may be taken on the remaining basis.

Impact

In the absence of section 179, the cost of qualified assets would have to be recovered over longer periods. Thus, the provision greatly accelerates the depreciation of relatively small purchases of those assets. This effect has significant implications for business investment. All other things being equal, expensing boosts the cash flow of firms able to take advantage of it, as the present value of the taxes owed on the stream of income earned by a depreciable asset is smaller under expensing than other depreciation schedules. Expensing also is equivalent to taxing the income earned from affected assets at a marginal effective tax rate of zero.

The allowance offers the additional benefit of simplifying tax accounting by reducing the record keeping for qualified investments.

Because the allowance has a phase-out threshold, its benefits are confined to firms that are relatively small in asset, employment, or revenue size.

Benefits to capital income tend to concentrate in the higher income classes (see discussion in the Introduction).

Rationale

The expensing allowance originated as a special first-year depreciation deduction established by the Small Business Tax Revision Act of 1958. The deduction was equal to 20 percent of the first \$10,000 of spending (\$20,000 in the case of a joint return) on new and used business equipment and machinery with a tax life of six or more years. It was intended to reduce the tax burden on small firms, give them an incentive to invest more, and simplify their tax accounting.

The deduction remained unchanged until the Economic Recovery Tax Act of 1981 (ERTA) replaced it with a maximum expensing allowance of \$5,000. ERTA also established an investment tax credit and a timetable for increasing the allowance in incremental amounts to \$10,000 by 1986. Business taxpayers were not permitted to claim the allowance and the credit for acquisitions of the same assets. As a result, relatively few firms took advantage of the allowance until the credit was repealed by the Tax Reform Act of 1986.

The Deficit Reduction Act of 1984 postponed the scheduled rise in the maximum allowance to \$10,000 from 1986 to 1990. The allowance did reach that amount in 1990.

It remained at \$10,000 until 1993, when President Clinton proposed a temporary investment credit for equipment for large firms and a permanent

one for small firms. The credits were not adopted, but the Omnibus Budget Reconciliation Act of 1993 raised the expensing allowance to \$17,500, starting January 1, 1993.

With the enactment of the Small Business Job Protection Act of 1996, the size of the allowance embarked on an accelerated upward path: it rose to \$18,000 in 1997, \$18,500 in 1998, \$19,000 in 1999, \$20,000 in 2000, \$24,000 in 2001 and 2002, and \$25,000 in 2003 and thereafter.

Seeking to give a boost to the economy and lower the tax burden on small business owners at the same time, Congress made several notable changes in the expensing allowance by passing the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA). First, the act raised the maximum allowance to \$100,000 and the phase-out threshold to \$400,000 for qualifying assets placed in service from 2003 through 2005. Second, JGTRRA indexed both amounts for inflation in 2004 and 2005, the first time such a step had been taken. Finally, it added purchases of off-the-shelf computer software for business use to the list of qualified assets from 2003 through 2005.

Under the American Jobs Creation Act of 2004, all the changes in the allowance made by JGTRRA were extended through 2007.

The Tax Increase Prevention and Reconciliation Act of 2005 extended the changes through 2009.

In passing the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Appropriations Act, 2007, Congress raised the maximum allowance to \$125,000 and the phaseout threshold to \$500,000 for assets placed in service in 2007 to 2010. The act also indexed both amounts for inflation in 2008 to 2010.

The Economic Stimulus Act of 2008 increased the allowance to \$250,000 and the phaseout threshold to \$800,000 in 2008 only. These amounts were extended through 2009 by the American Recovery and Reinvestment Act of 2009, and through 2010 by the Hiring Incentives to Restore Employment Act of 2010.

Under the Small Business Jobs Act of 2010, the maximum allowance rose to \$500,000 and the phaseout threshold to \$2,000,000 for qualifying property placed in service in 2010 and 2011. The act also created a maximum allowance of \$250,000 for qualified leasehold and restaurant and retail property improvements made in the same period and extended through

2011 the eligibility of purchases of off-the-shelf software for the section 179 allowance. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 set the expensing limit at \$125,000, phased out at \$500,000, for 2012. Congress may choose to extend the limit of \$500,000, but has yet to do so as of the publication date of this report. Under current law, the maximum allowance is scheduled to reset at \$25,000 in 2013 and thereafter, the level set by the Small Business Job Protection Act of 1996 (P.L. 104-188).

Assessment

The expensing allowance under section 179 has implications for tax administration and economic efficiency. With regard to the former, it simplifies tax accounting by permitting some taxpayers to write off the entire cost of qualified assets in the year in which they are placed in service. With regard to the latter, the provision encourages greater investment in certain capital assets than otherwise would be likely to occur by smaller firms in a way that could divert financial capital away from more productive uses. Nonetheless, its overall influence on tax administration and the allocation of investment is probably modest, since large firms are unable to use the allowance, for the most part.

Some argue that investment by smaller firms should be supported by government subsidies because they create more jobs and develop and commercialize more new technologies than larger firms. The evidence on this issue is inconclusive. In addition, economic analysis offers no clear justification for targeting investment tax subsidies at such firms. In theory, taxing the returns to investments made by all firms at the same effective rate does less harm to social welfare than granting preferential tax treatment to the returns earned by many small firms.

Some question the efficacy of expensing as a policy tool for encouraging higher levels of business investment. A more fruitful approach, in the view of these skeptics, would be to enact permanent reductions in corporate and individual tax rates and purge the tax code of most business tax preferences.

The economic effects of expensing could continue to receive congressional consideration in the next year or two, if the 113th Congress addresses the options for fundamental tax reform, as some observers expect it will. Such deliberations would likely be part of a broader effort to reach an agreement on a plan to rein in and eventually eliminate projected federal

budget deficits over the next decade or two. Proposed reforms of the tax code will be among those recommendations. Unlimited expensing of investments could be an element of any policy proposal to move the tax code in the direction of taxing consumption rather than income.

Selected Bibliography

Billings, B. Anthony, Buagu Musazi, and Melvin Houston. "Bonus Depreciation Tax Incentives May Not Work for Needy Firms," *Tax Notes*, February 11, 2008, pp. 735-737.

Cahlin, Richard A. "Current Deduction Available for Many Costs That Are Capital in Nature," *Taxation for Accountants*, Vol. 29. November 1982, pp. 292-295.

Cash, Stephen L. and Thomas L. Dickens. "Depreciation After the 2003 Tax Act – Part 1: Taxes," *Strategic Finance*, October 1, 2003, p. 17.

Cohen, Darrel and Jason Cummings. A Retrospective Evaluation of the Effects of Temporary Partial Expensing, Finance and Economics Discussion Series report 2006-19, Federal Reserve Board, Washington, DC.

Cordes, Joseph J. "Expensing," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle, eds., Washington, DC: Urban Institute Press, 1999, p. 114.

Gaffney, Dennis J., Maureen H. Smith-Gaffney, and Bonnie M. Moe. "JGTRRA Increases in Accelerated Capital Recovery Provisions Are Generally Taxpayer Friendly," *Journal of Taxation*, July, 2003, p. 20.

Gravelle, Jane G. Small Business Tax Subsidy Proposals, Library of Congress, Congressional Research Service Report 93-316, Washington, DC, March 15, 1994.

— Using Business Tax Cuts to Stimulate the Economy, Library of Congress, Congressional Research Service, Report RL31134, Washington, DC, January 11, 2011.

Guenther, Gary. Section 179 and Bonus Depreciation Expensing Allowances: Current Law, Legislative Proposals in the 112th Congress, and Economic Effects, Library of Congress, Congressional Research Service, Report RL31852, Washington, DC, September 10, 2012.

Holtz-Eakin, Doug. "Should Small Business be Tax-Favored?" *National Tax Journal*, Vol. 48, September 1995, pp. 447-462.

House, Christopher L. and Matthew D. Shapiro. "Temporary Investment Tax Incentives: Theory with Evidence from Bonus Depreciation," *American Economic Review*, Vol. 98, No. 3, June 2008, pp. 737-768.

Hulse, David S. and Jane R. Livingstone. "Incentive Effects of Bonus Depreciation," *Journal of Accounting and Public Policy*, Vol. 29, December 2010, pp. 578-603.

Knittel, Matthew. Corporate Response to Accelerated Tax Depreciation: Bonus Depreciation for Tax Years 2002-2004, OTA Working Paper 98,

Office of Tax Analysis, Department of the Treasury, Washington, DC: May 2007.

Neubig, Tom. "Where's the Applause? Why Most Corporations Prefer a Lower Rate," *Tax Notes*, April 24, 2006, pp. 483-486.

President's Advisory Panel on Federal Tax Reform. Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System, Washington, DC. November 2005.

U.S. Congress. Senate Committee on Finance hearing 104-69, *Small Business Tax Incentives*, Washington, DC: U.S. Government Printing Office, June 7, 1995.

Commerce and Housing: Other Business and Commerce

AMORTIZATION OF BUSINESS START-UP COSTS

Estimated Revenue Loss [In billions of dollars]

Fiscal year Individuals Total Corporations 1.3 0.11.4 2011 1.1 0.1 1.2 2012 1.0 2013 1.0 0.9 0.92014 0.8 0.8 2015

Authorization

Section 195.

Description

In general, business taxpayers are allowed to deduct all normal and reasonable expenses they incur in conducting their trade or business. This rule implies that costs incurred before the start of a business should not be deducted as a current expense because they were not incurred in connection with carrying on an active trade or business. If anything, start-up costs should be capitalized and added to a taxpayer's basis in the business. Yet under section 195, beginning in tax year 2010, a business taxpayer may deduct up to \$10,000 (\$5,000 in prior years) in qualified start-up expenditures. This limit is reduced dollar-for-dollar when these expenses exceed \$60,000 (\$50,000 in prior years). As of October 22, 2004, any remaining start-up expenses must be amortized over a period of not less than 15 years, beginning with the month in which the business commences.

If a business owner disposes of a trade or business before the end of the 15-year period, any remaining deferred expenses can be deducted as a loss under section 165.

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Start-up expenditures must satisfy two requirements to qualify for this preferential treatment. First, they must be paid or incurred with respect to one or more of the following activities: looking into the creation or acquisition of an active trade or business; creating an active trade or business; or engaging in what the Internal Revenue Service (IRS) deems "a profit-seeking or income-producing activity" before an active trade or business commences. Second, the expenditures must resemble costs that would be deductible if they were paid or incurred in connection with an existing trade or business. Excluded from qualifying start-up expenditures are interest payments on debt, tax payments, and spending on research and development that is deductible under section 174.

Impact

The election to deduct and amortize business start-up costs removes an impediment to the formation of new businesses by permitting the immediate deduction of expenses that otherwise could not be recovered until the owner sold his or her interest in the business.

Benefits to capital income tend to concentrate in the higher income classes (see discussion in the Introduction).

Rationale

Before the enactment of section 195 in 1980, the question of whether an expense incurred in connection with starting a new trade or business could be deducted as a current expense or should be capitalized was a longstanding source of controversy and costly litigation between business taxpayers and the IRS. Business taxpayers had the option of treating certain organizational expenditures for the formation of a corporation or partnership as deferred expenses and amortizing them over a period of not less than 60 months (Code sections 248 and 709).

Section 195 entered the federal tax code through the Miscellaneous Revenue Act of 1980. The original provision allowed business taxpayers to amortize start-up expenditures over a period of not less than 60 months. It defined start-up expenditures as any expense "paid or incurred in connection with investigating the creation or acquisition of an active trade or business, or creating an active trade or business." In addition, the expense had to be one that would have been immediately deductible if it were paid or incurred in connection with the expansion of an existing trade or business. Congress added section 195 to facilitate the creation of new businesses and reduce the

frequency of protracted legal disputes over the tax treatment of start-up expenditures.

Nevertheless, numerous disputes continued to arise over whether certain business start-up costs should be expensed under section 162, capitalized under section 263, or amortized under section 195. In another attempt to quell the controversy and curtail the litigation surrounding the interpretation of section 195, Congress added a provision to the Deficit Reduction Act of 1984 clarifying the definition of start-up expenditures. It required taxpayers to treat start-up expenditures as deferred expenses, which meant that they were to be capitalized unless a taxpayer elected to amortize them over 60 or more months. It also broadened the definition of start-up expenditures to include expenses incurred in anticipation of entering a trade or business.

No further changes were made in section 195 until the enactment of the American Jobs Creation Act of 2004. The act included a provision limiting the scope of the amortization of business start-up costs under prior law. Specifically, the provision permitted business taxpayers to deduct up to \$5,000 in eligible start-up costs in the tax year when their trade or business began. This amount had to be reduced (but not below zero) by the amount by which these costs exceeded \$50,000. Any remaining amount had to be amortized over 15 years, beginning with the month in which the active conduct of the trade or business commenced. The definition of start-up costs was left unchanged. In making these changes, Congress seemed to have two intentions. One was to encourage the formation of new firms that do not require substantial start-up costs by allowing a large share of those costs to be deducted in the tax year when they begin to operate. The second aim was to make the amortization period for start-up costs consistent with that for intangible assets under section 197, which is 15 years.

In order to further promote entrepreneurship, the Small Business Jobs and Credit Act of 2010 (P.L. 111-240) increased the amount of start-up expenditures a taxpayer can elect to deduct from \$5,000 to \$10,000 and increased to \$60,000 the ceiling amount over which cumulative start-up expenditures begin to be reduced. These changes take effect for taxable years beginning in 2010.

Assessment

In theory, business start-up costs should be written off over the life of the business on the grounds that they are a capital expense. Such a view, however, does pose the difficult challenge of determining the useful life of a business at its outset.

Section 195 has two notable advantages as a means of addressing this challenge. First, it makes costly and drawn-out legal disputes involving business taxpayers and the IRS over the tax treatment of start-up costs less likely. Second, it does so at a relatively small revenue cost.

Selected Bibliography

- J.W. Burgess Raby and William L. Raby, "Start-up Costs," *Tax Notes*, vol. 114, February 12, 2007, pp. 661-664.
- CRS Report RL32254, Small Business Tax Benefits: Current Law and Economic Justification, by Gary Guenther.
- Jon E. Davis, "Amortization of Start-Up Costs," *Tax Adviser*, April 1999, p. 222.
- Nicholas J. Fiore, "IRS Issues Guidance on Amortizable Start-Up Cost," *Tax Adviser*, July 1999, pp. 527-532.
- Henry A. Garris, "Update and Review of Start-Up Expenditures," *CPA Journal*, vol. 61, no. 3 (March 1991), p. 60.
- Susan Kalinka, "When Will Business Investigatory Expenditures Be Amortizable Start-Up Costs?," *Taxes*, vol. 76, no. 5 (September 1998), pp. 5-9.
- Robin Kline, "Disallowed Start-Up Expenses," *Tax Adviser*, October 1998, pp. 666-667.
- Larry Maples and Melanie James Earles, "How to Scale the Deduction Barriers," *Journal of Accountacy*, vol. 190, no. 5 (November 2000), pp. 69-76.
- Michael S. Paul, "Elect to Amortize Nondeductible Start-Up Expenses," *Taxation for Accountants*, August 1995, pp. 68-73.
- Mark B. Persellin and Shawn E. Novak, "Start-Up Expenditures: Compliance and Planning Issues," *Journal of Corporate Taxation*, Summer 1995, p. 141.
- Edward J. Schnee, "Speed Up the Deduction of Business Expansion Costs," *Practical Tax Strategies*, vol. 63, no. 1 (July 1999), pp. 4-11.
- David A. Thornton, "IRS Clarifies the Applicability of Section 195 to Business Acquisitions," *Tax Adviser*, September 1999, pp. 625-626.
- U.S. Congress, House Committee on Ways and Means, *Miscellaneous Revenue Act of 1980*, on H.R. 7956, 96th Cong., 2nd sess., H.Rept. 96-1278 (Washington, DC: GPO, 1980), pp. 9-13.
- , Senate Committee on Finance, *Jumpstart Our Business Strength* (*Jobs*) *Act*, report to accompany S. 1637, 108th Cong., 1st sess., H.Rept.108-192, (Washington, DC: GPO, 2003), pp. 196-197.

- —, Joint Committee on Taxation, General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984. joint committee print, 98th Cong., 2nd sess., December 31, 1984, JCS-41-84 (Washington, DC: GPO, 1984), pp. 295-297.
- , Joint Committee on Taxation, Technical Explanation of the Tax Provisions in Senate Amendment 4594 to H.R. 5297, The "Small Business Jobs Act of 2010," Scheduled for Consideration by the Senate on September 16, 2010, September 16, 2010, JCX-47-10, pp. 16-17.
- U.S. Department of the Treasury, Revenue Service. *Business Expenses*, Publication 535, March 13, 2012.
- , Internal Revenue Service, "Elections Regarding Start-Up Expenditures, Corporation Organizational Expenditures, and Partnership Organizational Expenses" (T.D. 9542), 76 Federal Register 50887, August 17, 2011.
- , Internal Revenue Service, "Elections Regarding Start-Up Expenditures, Corporation Organizational Expenditures, and Partnership Organizational Expenses: Correction" (T.D. 9542), 76 Federal Register 56973, September 15, 2011.
- , Internal Revenue Service, *Starting a Business and Keeping Records*, Publication 583, December 2011.
- Gary B. Wilcox, "Start-Up Cost Treatment Under Section 195: Tax Disparity in Disguise," *Oklahoma Law Review*, v. 36., no. 2 (Spring 1983), pp. 449-466.

Commerce and Housing Credit: Other Business and Commerce

REDUCED RATES ON FIRST \$10,000,000 OF CORPORATE TAXABLE INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	3.2	3.2
2012	-	3.2	3.2
2013	-	3.1	3.1
2014	-	3.1	3.1
2015	-	3.1	3.1

Authorization

Section 11.

Description

Corporations with less than \$10 million in taxable income are taxed according to a graduated rate structure. The tax rate is 15 percent on the first \$50,000 of income, 25 percent on the next \$25,000, and an average of 34 percent thereafter. To offset the benefit from the lower rates, a tax rate of 39 percent is imposed on corporate taxable income between \$100,000 and \$335,000. As a result, the benefit of the lower rates disappears for corporations with taxable income in excess of \$335,000; in fact, they pay a flat average rate of 34 percent. The tax rate on taxable income between \$335,000 and \$10 million is 34 percent. It rises to 35 percent for taxable income from \$10 million to \$15 million. When taxable income falls between \$15 million and \$18,333,333, the rate jumps to 38 percent. Finally, a flat rate of 35 percent applies to taxable income above \$18,333,333. Consequently, the benefit of the 34 percent rate is lost when income reaches \$18,333,333.

The graduated rates do not apply to the taxable income of personalservice corporations; instead, it is taxed at a flat rate of 35 percent. In addition, there are restrictions on eligibility for the lower rates to prevent abuse by related corporations.

The tax expenditure for section 11 lies in the difference between taxes paid and the taxes that would be paid if all corporate income were taxed at a flat 35 percent rate.

Impact

The lower rates mainly affect smaller corporations. This effect occurs because the graduated rate structure limits the benefits of the rates under 35 percent to corporations with taxable incomes below \$335,000.

The graduated rates encourage firms to use the corporate form of legal organization and allow some small corporations that might otherwise operate as passthrough entities (e.g., sole proprietorships or partnerships) to provide fringe benefits. They also encourage the splitting of operations between sole proprietorships, partnerships, S corporations and regular C corporations. Most businesses are not incorporated; so only a small fraction of firms are affected by this provision. In 2005, the most recent year for which comprehensive business tax return data are available, C corporations accounted for 6 percent of all business tax returns. Most of these corporations benefit from the reduced rates.

This provision is likely to benefit higher-income individuals who are the primary owners of capital (see Introduction for a discussion).

Rationale

In the early years of the corporate income tax, exemptions from the tax were allowed in some years. A graduated rate structure was first adopted in 1936. From 1950 to 1974, corporate income was subject to a "normal tax" and a surtax; the first \$25,000 of income was exempt from the surtax. The exemption was intended to provide tax relief for small businesses.

Not surprisingly, this dual structure led many large firms to reorganize their operations into smaller corporations in order to avoid paying the surtax. Some steps to remedy this loophole were taken in 1963. But the most

⁹ U.S. Congress, Joint Committee on Taxation, *Tax Reform: Selected Federal Tax Issues Relating to Small Business and Choice of Entity*, JCX-48-08 (Washington: June 4, 2008), p. 8.

important correction came in 1969, when legislation was enacted that limited clusters of corporations controlled by the same interest to a single exemption.

In 1975, a graduated rate structure with three brackets was adopted. In 1984, a law was enacted which included a provision phasing out the exemption for taxable incomes between \$1 million and \$1.405 million. The act also lowered the rates that applied to incomes up to \$100,000.

The present graduated rate structure for corporate taxable income below \$10 million came into being with the passage of the Tax Reform Act of 1986. Among other things, the act lowered the ceilings on the rates and accelerated the phase-out of the reduced rates so that their benefits phased out between \$100,000 and \$335,000. In taking these steps, Congress was attempting to target the benefits of the graduated rate structure more precisely at smaller firms. Hoping to reduce a large and growing budget deficit by raising revenue, Congress added the 35-percent corporate tax rate through the Omnibus Budget Reconciliation Act of 1993.

Assessment

A principal justification for the graduated rates is that they encourage the growth of small entrepreneurial firms. The reduced rates lower their cost of capital for new investments and provide welcome tax relief at a time when many of them struggle to survive. They were also originally intended to lessen the burden of the double taxation of corporate earnings. But can the graduated rates be justified on economic grounds?

They are difficult to justify on equity grounds. Unlike the graduated rates of the individual tax, the corporate graduated rate structure have nothing to do with a firm's ability to pay: ultimately it is individuals and not corporations who end up paying corporate taxes.

Can the graduated rate structure be justified on the grounds that it improves economic efficiency? Once again, it is difficult to make a convincing case. Although some argue that government policy should support investment by small firms because they tend to create more jobs and generate more technological innovations than larger firms, evidence on this issue is decidedly mixed and inconclusive. In theory, economic resources are likely to migrate to their most productive uses when the tax treatment of the returns to all investments is the same. A graduated rate structure encourages higher levels of investment by smaller corporations than would be the case if all corporate profits were taxed at a flat rate of 35 percent. Graduated rates

also give large corporations an incentive to operate for tax purposes as multiple smaller units, where economies of scale have less of an impact on the returns to investment. And under a graduated rate structure, owners of small corporations are more likely to shelter income by retaining earnings rather than paying them out as dividends.

Graduated rates do have the advantage of making it possible for owners of businesses in the lower income brackets to operate as corporations. Generally, business owners are free to operate their firms as a regular C corporation or some kind of passthrough entity (i.e., sole proprietorship, partnership, limited liability company, or S corporation) for tax purposes. Income earned by passthrough entities is attributed to the owners (whether or not it is distributed) and taxed at individual income tax rates. Depending on the amount, it is possible for income earned by corporations to be taxed at lower rates than income earned by passthrough entities. Differences between the two rates create opportunities for sheltering income in corporations. There may be some circumstances, however, where operating as a passthrough entity is not feasible. For instance, a firm must operate as a C corporation if it wants to issue more than one class of stock or offer employee fringe benefits that are eligible for favorable tax treatment.

The reduced corporate rates also make it likely that small corporations will rely more on equity than debt to finance investments.

Selected Bibliography

Armington, Catherine, and Marjorie Odle. "Small Business—How Many Jobs?" *Brookings Review*, v. 1, no. 2. Winter 1982, pp. 14-17.

Edmiston, Kelley. The Role of Small and Large Businesses in Economic Development. Federal Reserve Bank of Kansas City, *Economic Review* (2nd Quarter 2007): 73-97.

Gravelle, Jane G. "Federal Tax Treatment of Small Business: How Favorable? How Justified?" Papers and Proceedings of the 110th Annual Meetings of the National Tax Association, 2009.

—. "The Corporate Income Tax: Where Has It Been and Where Is It Going?" *National Tax Journal*, v. 57, December 2004. pp. 903-923.

Guenther, Gary. Small Business Tax Benefits: Current Law and Economic Justification. Library of Congress, Congressional Research Service Report RL32254. Washington, DC: January, 2012.

Holtz-Eakin, Douglas. "Should Small Business be Tax-Favored?" *National Tax Journal*, v. 48, September 1995, pp. 447-462.

Keightley, Mark P. Business Organizational Choices: Taxation and Responses to Legislative Changes. Library of Congress, Congressional Research Service Report R40748. Washington, DC: April, 2012.

Keightley, Mark P and Molly F. Sherlock. *The Corporate Income Tax System: Overview and Options for Reform.* Library of Congress, Congressional Research Service Report R42726. Washington, DC: September, 2012.

Pechman, Joseph A. Federal Tax Policy. Washington, DC: The Brookings Institution, 1987, pp. 302-305.

Plesko, George A. "'Gimme Shelter?' Closely Held Corporations Since Tax Reform," *National Tax Journal*, v. 48. September 1995, pp. 409-416.

Schnee, Edward J. "Refining the Definition of a Personal Service Corporation." *Journal of Accountancy*, v. 202, no. 3, September 1, 2006. p. 74

- U.S. Congress, Congressional Budget Office. *Budget Options*,. Washington, DC: February 2007, p. 298.
- , Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986*, 99th Congress, 2nd session. May 4, 1987: pp. 271-273.
- —, Senate Committee on Finance hearing 104-69. *Small Business Tax Incentives*. Washington, DC: U.S. Government Printing Office, June 7, 1995.
- U.S. Department of the Treasury. Tax Reform for Fairness, Simplicity, and Economic Growth, v. 2, General Explanation of the Treasury Department Proposals. November, 1974, pp. 128-129.

Commerce and Housing: Other Business and Commerce

PERMANENT EXEMPTION FROM IMPUTED INTEREST RULES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.5	(¹)	0.5
2012	0.5	(1)	0.5
2013	0.6	(¹)	0.6
2014	0.6	(¹)	0.6
2015	0.6	(¹)	0.6

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 163(e), 483, 1274, and 1274A.

Description

The failure to report interest as it accrues can allow the deferral of taxes. The tax code generally requires that debt instruments bear a market rate of interest at least equal to the average rate on outstanding Treasury securities of comparable maturity. If an instrument does not, the Internal Revenue Service imputes a market rate to it. The imputed interest must be included as income to the recipient and is deducted by the payer.

There are several exceptions to the general rules for imputing interest on debt instruments. Debt associated with the sale of property when the total sales price is no more than \$250,000, the sale of farms or small businesses by individuals when the sales price is no more than \$1 million, and the sale of a personal residence, is not subject to the imputation rules at all. Debt instruments for amounts not exceeding an inflation-adjusted maximum (about \$4.6 million or \$3.3 million, depending on the kind of the debt

instrument), given in exchange for real property, may not have imputed to them an interest rate greater than 9 percent.

This tax expenditure is the revenue loss in the current year from the deferral of taxes caused by these exceptions.

Impact

The exceptions to the imputed interest rules are generally directed at "seller take-back" financing, in which the seller of the property receives a debt instrument (note, mortgage) in return for the property. This is a financing technique often used in selling personal residences or small businesses or farms, especially in periods of tight money and high interest rates, both to facilitate the sales and to provide the sellers with continuing income.

This financing mechanism can also be used, however, to shift taxable income between tax years and thus delay the payment of taxes. When interest is fully taxable but the gain on the sale of the property is taxed at reduced capital gains rates, as in current law, taxes can be eliminated, not just deferred, by characterizing more of a transaction as gain and less as interest (that is, the sales price could be increased and the interest rate decreased).

With only restricted exceptions to the imputation rules, and other recent tax reforms, the provisions now cause only modest revenue losses and have relatively little economic impact.

Rationale

Restrictions were placed on the debt instruments arising from seller-financed transactions beginning with the Revenue Act of 1964, to assure that taxes were not reduced by manipulating the purchase price and stated interest charges. These restrictions still allowed considerable creativity on the part of taxpayers, however, leading ultimately to the much stricter and more comprehensive rules included in the Deficit Reduction Act of 1984.

The 1984 rules were regarded as very detrimental to real estate sales and they were modified almost immediately (temporarily in 1985 [P.L. 98-612] and permanently in 1986 [P.L. 99-121]). The exceptions to the imputed interest rules described above were introduced in 1984 and 1986 (P.L. 99-121) to allow more flexibility in structuring sales of personal residences, small businesses, and farms by the owners, and to avoid the administrative problems that might arise in applying the rules to other smaller sales.

Assessment

The imputed interest and related rules dealing with property-for-debt exchanges were important in restricting unwarranted tax benefits before the Tax Reform Act of 1986 eliminated the capital gains exclusion and lengthened the depreciable lives of buildings.

Under pre-1986 law, the seller of commercial property would prefer a higher sales price with a smaller interest rate on the associated debt, because the gain on the sale was taxed at lower capital gains tax rates. The buyer would at least not object to, and might prefer, the same allocation because it increased the cost of property and the amount of depreciation deductions (*i.e.*, the purchaser could deduct the principal, through depreciation deductions, as well as the interest). It was possible to structure a sale so that both seller and purchaser had more income at the expense of the government.

Under current depreciation rules and low interest rates, this allocation is much less important. In addition, the 9-percent cap on imputed interest for some real estate sales has no effect when market interest rates are below that figure.

Selected Bibliography

Internal Revenue Service. *Installment Sales: For Use in Preparing 2011 Returns*, Publication 537, pp. 10, 11.

- U.S. Congress, Joint Committee on Taxation. Description of the Tax Treatment of Imputed Interest on Deferred Payment Sales of Property, JCS-15-85. May 17, 1985.
- . General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, JCS-41-84. December 31, 1984, pp.108-127.

Commerce and Housing: Other Business and Commerce

EXPENSING OF MAGAZINE CIRCULATION EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	(1)	(1)
2012	$\binom{1}{2}$	(1)	(1)
2013	(1)	(1)	$\binom{1}{2}$
2014	(¹)	$\binom{1}{}$	(¹)
2015	$(^{1})$	(¹)	(1)

⁽¹⁾ Positive tax expenditure of less than \$50 million

Authorization

Section 173.

Description

In general, current federal tax law allows publishers of newspapers, magazines, and other periodicals to deduct their expenditures to maintain, establish, or increase circulation in the year when they are made.

Deductions of these expenditures as current expenses are permitted, even though expenditures to establish or increase circulation would otherwise be treated as capital expenditures under section 263. The expenditures eligible for this preferential treatment do not include purchases of land and depreciable property, or the expansion of circulation through the purchase of another publisher or its list of subscribers.

The tax expenditure in section 173 arises from the difference between the deduction of costs as current expenses and the present value of the depreciation deductions that would be taken if the costs were capitalized.

Impact

Deducting circulation costs as a current expense speeds up the recovery of those costs. This acceleration in turn increases cash flow and reduces the cost of capital for publishers. Investment in maintaining and expanding circulation is a key element of the competitive strategies for publishers of newspapers and magazines. Readers obviously are an important source of revenue, and the advertising rates publishers charge typically are based on the volume of sales and readership.

Like many other business tax expenditures, the benefit tends to accrue to high-income individuals (see Introduction for a discussion).

Rationale

Section 173 was added to the federal tax code through the Revenue Act of 1950. In taking this step, Congress wanted to eliminate some of the difficulties associated with distinguishing between expenditures to maintain circulation, which had been treated as currently deductible, and those to establish or develop new circulation, which had to be capitalized. Numerous legal disputes between publishers and the Internal Revenue Service over the application and interpretation of this distinction had arisen as far back as the late 1920s

The treatment of circulation expenses under section 173 remained unchanged until the passage of the Tax Equity and Fiscal Responsibility Act of 1982. Among other things, the act made the expensing of circulation expenditures a preference item under the alternative minimum tax (AMT) for individuals and required individuals paying the AMT to amortize any such expenditures over 10 years. Congress lowered the recovery period to three years in the Deficit Reduction Act of 1984, where it now stands. The Tax Reform Act of 1986 further clarified the treatment of circulation expenditures under the AMT: it allowed taxpayers who recorded a loss on the disposition of property related to such expenditures (e.g., a newspaper) to claim as a deduction against the AMT all circulation expenditures that had not already been deducted against the tax.

Assessment

Section 173 provides a significant tax benefit for publishers in that it allows them to expense the acquisition of an asset (i.e., lists of subscribers) that seems to yield returns in more years than one. At the same time, it simplifies tax compliance and accounting for them and tax administration for

the IRS. Without such treatment, it would be necessary for the IRS or Congress to clarify how to distinguish between expenditures for establishing or expanding circulation and expenditures for maintaining circulation.

Selected Bibliography

Commerce Clearing House, "50 Act Clarified Tax Treatment of Circulation Expenses of Publishers," *Federal Tax Guide Reports*, v. 48, September 9, 1966, p. 2.

- James H. Davidson, "A Publisher's Guide to Tax Reform," *Folio: The Magazine for Magazine Management*, vol. 16 (February 1987), p. 112.
- U.S. Congress, Joint Committee on Taxation, General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, joint committee print, 98th Cong., 2nd sess., December 31, 1984, JCS-41-84 (Washington, DC: GPO, 1984), p. 986.
- , Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1986, joint committee print, 100th Cong., 1st sess., May 4, 1987, JCS-10-87 (Washington, DC: GPO, 1987), p. 445.
- , Joint Committee on Internal Revenue Taxation, *Summary of H.R.* 8920, "The Revenue Act of 1950," as agreed to by the Conferees, September 1950 (Washington, DC: GPO, 1950), p. 12.
- U.S. Department of the Treasury, Internal Revenue Service, *Business Expenses*, Publication 535, March 13, 2012, p. 23.

Commerce and Housing: Other Business and Commerce

SPECIAL RULES FOR MAGAZINE, PAPERBACK BOOK, AND RECORD RETURNS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	(1)	(1)
2012	(1)	(1)	(1)
2013	(1)	(¹)	$\binom{1}{2}$
2014	(1)	$\binom{1}{2}$	(¹)
2015	(¹)	(¹)	$\binom{1}{2}$

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 458.

Description

In general, if a buyer returns goods to the seller, the seller's income is reduced in the year in which the items are returned. If the goods are returned after the tax year in which the goods were sold, the seller's income for the previous year is not affected.

An exception to the general rule has been granted to publishers and distributors of magazines, paperbacks, and records, who may elect to exclude from gross income for a tax year the income from the sale of goods that are returned after the close of the tax year. The exclusion applies to magazines that are returned within two months and fifteen days after the close of the tax year, and to paperbacks and records that are returned within four months and fifteen days after the close of the tax year.

To be eligible for the special election, a publisher or distributor must be under a legal obligation, at the time of initial sale, to provide a refund or credit for unsold copies.

Impact

Publishers and distributors of magazines, paperbacks, and records who make the special election are not taxed on income from goods that are returned after the close of the tax year. The special election mainly benefits large publishers and distributors.

Rationale

The purpose of the special election for publishers and distributors of magazines, paperbacks, and records is to avoid imposing a tax on accrued income when goods that are sold in one tax year are returned after the close of the year.

The special rule for publishers and distributors of magazines, paperbacks, and records was enacted by the Revenue Act of 1978.

Assessment

For goods returned after the close of a tax year in which they were sold, the special exception allows publishers and distributors to reduce income for the previous year. Therefore, the special election is inconsistent with the general principles of accrual accounting.

The special tax treatment granted to publishers and distributors of magazines, paperbacks, and records is not available to producers and distributors of other goods. On the other hand, publishers and distributors of magazines, paperbacks, and records often sell more copies to wholesalers and retailers than they expect will be sold to consumers.

One reason for the overstocking of inventory is that it is difficult to predict consumer demand for particular titles. Overstocking is also used as a marketing strategy that relies on the conspicuous display of selected titles. Knowing that unsold copies can be returned, wholesalers and retailers are more likely to stock a larger number of titles and to carry more copies of individual titles.

For business purposes, publishers generally set up a reserve account in the amount of estimated returns. Additions to the account reduce business income for the year in which the goods are sold. For tax purposes, the special election for returns of magazines, paperbacks, and records is similar, but not identical, to the reserve account used for business purposes.

Selected Bibliography

- Anthony R. Castellanos and Karen R. Ryan, "The special return rule for magazines, books, and records When Section 458 is worth the hassle," *Journal of Taxation*, March 1998, vol. 88, no. 3, p. 156.
- U.S. Congress, Joint Committee on Taxation, *General Explanation of the Revenue Act of 1978*, joint committee print, 96th Cong., 1st sess., March 12, 1979 (Washington, DC: GPO, 1979), pp. 235-41.
- , Joint Committee on Taxation, *Tax Reform Proposals: Accounting Issues*, joint committee print, 99th Cong., 1st sess., September 13, 1985, JCS-39-85 (Washington, DC: GPO, 1985), pp. 75-82.
- U.S. Department of the Treasury, Internal Revenue Service, "Certain Returned Magazines, Paperbacks or Records," 57 Federal Register 38595, August 26, 1992.

COMPLETED CONTRACT RULES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(')	0.7	0.7
2012	(¹)	0.7	0.7
2013	(1)	0.8	0.8
2014	(1)	0.8	0.8
2015	(¹)	0.9	0.9

⁽¹⁾ Positive tax expenditure of less than \$50 million

Authorization

Section 460.

Description

Some taxpayers with construction or manufacturing contracts extending for more than one tax year are allowed to report some or all of the profit on the contracts under special accounting rules rather than the normal rules of tax accounting. Many such taxpayers use the "completed contract" method.

A taxpayer using the completed contract method of accounting reports income on a long-term contract only when the contract has been completed. All costs properly allocable to the contract are also deducted when the contract is completed and the income reported, but many indirect costs may be deducted in the year paid or incurred. This mismatching of income and expenses allows a deferral of tax payments that creates a tax advantage in this type of reporting.

Most taxpayers with long-term contracts are not allowed to use the completed contract method and must capitalize indirect costs and deduct them only when the income from the contract is reported. There are

exceptions, however. Home construction contracts may be reported according to the taxpayer's "normal" method of accounting and allow current deductions for costs that others are required to capitalize.

Other real estate construction contracts may also be subject to these more liberal rules if they are of less than two years' duration and the contractor's gross receipts for the past three years have averaged \$10 million or less. Contracts entered into before March 1, 1986, if still ongoing, may be reported on a completed contract basis, but with full capitalization of costs.

Contracts entered into between February 28, 1986, and July 11, 1989, and residential construction contracts other than home construction may be reported in part on a completed contract basis, but may require full cost capitalization. This tax expenditure is the revenue loss from deferring the tax on those contracts still allowed to be reported under the more liberal completed contract rules.

Impact

Use of the completed contract rules allows the deferral of taxes through mismatching income and deductions because they allow some costs to be deducted from other income in the year incurred, even though the costs actually relate to the income that will not be reported until the contract's completion, and because economic income accrues to the contractor each year he works on the contract but is not taxed until the year the contract is completed. Tax deferral is the equivalent of an interest-free loan from the government of the amount of the deferred taxes. Because of the restrictions now placed on the use of the completed contract rules, most of the current tax expenditure relates to real estate construction, especially housing.

Rationale

The completed contract method of accounting for long-term construction contracts has been permitted by Internal Revenue regulations since 1918, on the grounds that such contracts involved so many uncertainties that profit or loss was undeterminable until the contract was completed.

In regulations first proposed in 1972 and finally adopted in 1976, the Internal Revenue Service extended the method to certain manufacturing contracts (mostly defense contracts), at the same time tightening the rules as to which costs must be capitalized. Perceived abuses, particularly by defense contractors, led Congress to question the original rationale for the provision

and eventually led to a series of ever more restrictive rules. The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) further tightened the rules for cost capitalization.

The Tax Reform Act of 1986 (P.L. 99-514) for the first time codified the rules for long-term contracts and also placed restrictions on the use of the completed contract method. Under this Act, the completed contract method could be used for reporting only 60 percent of the gross income and capitalized costs of a contract, with the other 40 percent reported on the "percentage of completion" method, except that the completed contract method could continue to be used by contractors with average gross receipts of \$10 million or less to account for real estate construction contracts of no more than two years' duration. It also required more costs to be capitalized, including interest.

The Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203) reduced the share of a taxpayer's long-term contracts that could be reported on a completed contract basis from 60 percent to 30 percent. The Technical and Miscellaneous Revenue Act of 1988 (P.L. 100-647) further reduced the percentage from 30 to 10, (except for residential construction contracts, which could continue to use the 30 percent rule) and also provided the exception for home construction contracts.

The Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239) repealed the provision allowing 10 percent to be reported by other than the percentage of completion method, thus repealing the completed contract method, except as noted above.

The most recent legislative change was a provision of the American Jobs Creation Act of 2004, later amended in the Gulf Opportunity Zone Act of 2005, permitting naval shipbuilders to use the completed contract method.

Assessment

Use of the completed contract method of accounting for long-term contracts was once the standard for the construction industry. Extension of the method to defense contractors, however, created a perception of wide-spread abuse of a tax advantage. The Secretary of the Treasury testified before the Senate Finance Committee in 1982 that "virtually all" defense and aerospace contractors used the method to "substantially reduce" the taxes they would otherwise owe.

The principal justification for the method had always been the uncertainty of the outcome of long-term contracts, an argument that lost a lot of its force when applied to contracts in which the government bore most of the risk. It was also noted that even large construction companies, who used the method for tax reporting, were seldom so uncertain of the outcome of their contracts that they used it for their own books; their financial statements were almost always presented on a strict accrual accounting basis comparable to other businesses.

Since the use of the completed contract rules is now restricted to a very small segment of the construction industry, it produces only small revenue losses for the government and probably has little economic impact in most areas. One area where it is still permitted, however, is in the construction of single-family homes, where it adds some tax advantage to an already heavily tax-favored sector.

Selected Bibliography

Knight, Ray A., and Lee G. Knight. Recent Developments Concerning the Completed Contract Method of Accounting, *The Tax Executive*, v. 41, Fall 1988, pp. 73-86.

Internal Revenue Service. Accounting for Construction Contracts—Construction Tax Tips, IRS.gov, March 14, 2012.

- —. Industry Director Directive on Super Completed Contract Method, IRS.gov, August 13, 2012.
- U.S. Congress, House of Representatives Committee on the Budget. *Omnibus Budget Reconciliation Act of 1989.* September 1989, p. 1,347.
- —, Joint Committee on Taxation. General Explanation of the Revenue Provisions of the Tax Equity and Fiscal Responsibility Act of 1982. JCS-38-82, December 31, 1982, pp. 148-154.
- . General Explanation of the Tax Reform Act of 1986. JCS-10-87, May 4, 1987, pp. 524-530.
- . Tax Reform Proposals: Accounting Issues. JCS-39-85, September 13, 1985, pp. 45-49.
- U.S. General Accounting Office. Congress Should Further Restrict Use of the Completed Contract Method. Report GAO/GGD-86-34, January 1986.

CASH ACCOUNTING, OTHER THAN AGRICULTURE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.0	(1)	1.0
2012	1.1	(1)	1.1
2013	1.1	(1)	1.1
2014	1.2	(¹)	1.2
2015	1.3	(¹)	1.3

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 446 and 448

Description

In general, two methods of accounting are used for tax purposes: the cash method and the accrual method. The cash method of accounting allows business taxpayers to report income in the year when it is received and take deductions in the year when expenses are paid. By contrast, the accrual method of accounting makes it possible for taxpayers to recognize income when it is earned — irrespective of whether or not it has been received — and to claim deductions for expenses in the year when the expenses are incurred. Each accounting method has its advantages. The cash method is simpler to use, while the accrual method often paints a more accurate picture of a taxpayer's income, as it matches income with expenses with greater precision and rigor.

Some taxpayers are required to use the accrual method in computing their taxable income. Specifically, every firm (except for some farmers) that maintains an inventory as part of conducting its business, or that receives certain types of income and incurs expenses that span two or more tax years (e.g., depreciation and prepaid expenses), must use that method. C corporations, partnerships that have C corporations as partners, trusts that earn unrelated business income, and authorized tax shelters are also required to use the accrual method.

But the cash method may be used by any taxpayer that is not a tax shelter and is engaged in the business of farming or tree raising (discussed under "Agriculture" above), operates as a qualified personal service corporation, or is permitted to use the accrual method, such as a C corporation with \$5 million or less in average gross receipts in the three previous tax years. Qualified personal service corporations are employeeowned service businesses in the fields of health, law, accounting, engineering, architecture, actuarial science, performing arts, or consulting. In addition, the Internal Revenue Service has issued two rulings in the past 11 years that have expanded the scope of permissible use of the cash method. As a result, the cash method may be used by most sole proprietorships, S corporations, and partnerships with average annual gross receipts of \$1 million or less in the three previous tax years (IRS Rev. Proc. 2001-10); it also may be used by firms involved in providing services or fabricating products according to customer designs or specifications that have average annual gross receipts of \$10 million or less in the three previous tax years (IRS Rev. Proc. 2002-28).

Impact

Most individuals and many smaller businesses use the cash method of accounting for tax purposes because it is less burdensome than the accrual method. The tax expenditure arising from use of the cash method mainly benefits owners of eligible small businesses and professional service corporations of all sizes.

Rationale

Individuals and many businesses are allowed to use the cash method of accounting because it typically requires keeping fewer records than do other methods of accounting.

Under the Revenue Act of 1916, a taxpayer was allowed to calculate its income for tax purposes using the same accounting method that the taxpayer used to compute its income for business purposes. The Internal Revenue Code of 1954 modified this rule by allowing taxpayers to use a combination of accounting methods in calculating their tax liabilities. Additional changes

in the use of the cash method for tax purposes wwere introduced by the Tax Reform Act of 1986. Specifically, it barred tax shelters, C corporations, partnerships with C corporations as partners, and certain trusts from using the method.

Assessment

A taxpayer's choice of accounting methods may affect the amount and timing of his or her income tax payments. Relative to the cash method, the accrual method more precisely matches income with the expenses associated with producing it for a given period. For business or financial reporting purposes, the accrual method also provides a better indication of a firm's financial performance for a given period.

But by using the cash method, taxpayers can exercise greater control over the timing of receipts and payments for expenses. By shifting income or deductions from the current tax year tax year to a future one, taxpayers can defer the payment of income taxes or take advantage of expected or enacted reductions in tax rates.

In addition, the cash method of accounting has the advantages of lower compliance costs and greater familiarity for individuals and small firms that are permitted to use it for tax purposes.

Selected Bibliography

Guenther, Gary. Small Business Tax Benefits: Overview and Economic Rationales. Library of Congress, Congressional Research Service Report RL32254. Washington, DC: April 19, 2010.

Tinsey, Frederick C. "Many Accounting Practices Will Have to be Changed as a Result of the Tax Reform Act." *Taxation for Accountants*, v. 38. January 1987, pp. 48-52.

- U.S. Congress, Joint Committee on Taxation. *Tax Reform Proposals: Accounting Issues*, Committee Print, 99th Congress, 1st session. September 13, 1985.
- . Technical Explanation of S.3152, The "Community Renewal and New Markets Act of 2000." JCX-105-00, October 2000, p. 77.
- . Technical Explanation of the "Economic Security and Worker Assistance Act of 2002." JCX-6-02, February 13, 2002, p. 62.
- . General Explanation of Tax Legislation Enacted in the 107th Congress. JCS-1-03, January 2003, pp. 240-242.
- U.S. Department of the Treasury. *Announcement 2002-45. Revenue Procedure 2002-14.* April 12, 2002.

U.S. Department of the Treasury. Internal Revenue Service. *Accounting Periods and Methods*. Publication 538. 2004.

Weinstein, Gerald P. And William J. Cenker. "Tax Accounting Methods and Entity Choice," *Taxes*, vol. 86, no. 8, August 2008, pp. 23-32.

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT SMALL-ISSUE QUALIFIED PRIVATE ACTIVITY BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	0.1	0.3
2012	0.3	0.1	0.3
2013	0.3	0.1	0.3
2014	0.3	0.1	0.3
2015	0.3	0.1	0.3

Authorization

Sections 103, 141, 144, and 146.

Description

Interest income on state and local bonds used to finance business loans of \$1 million or less for construction of private manufacturing facilities is tax exempt. These small-issue industrial development bonds (IDBs) are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

The \$1 million loan limit may be raised to \$10 million if the aggregate amount of related capital expenditures (including those financed with tax-exempt bond proceeds) made over a six-year period is not expected to exceed \$10 million. Aggregate borrowing is limited to \$40 million for any

one borrower. The bonds are subject to the state private-activity bond annual volume cap.

The American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) expanded the definition of manufacturing facilities to include facilities that manufacture, create, or produce tangible property or intangible property. Intangible property means any patent, copyright, formula, process, design, knowhow, format, or other similar item. This provision expired January 1, 2011.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer loans to manufacturing businesses at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and business borrowers, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

The first bonds for economic development were issued without any federal restrictions. State and local officials expected that reduced interest rates on business loans would increase investment and jobs in their communities. The Revenue and Expenditure Control Act of 1968 imposed several targeting requirements, limiting the tax exempt bond issue to \$1 million and the amount of capital spending on the project to \$5 million over a six-year period. The Revenue Act of 1978 increased the \$5 million limit on capital expenditures to \$10 million, and to \$20 million for projects in certain economically distressed areas. The American Jobs Creation Act of 2004 (P.L. 108-357) effectively increased the related expenditures limit to \$20 million for bonds issued after September 30, 2009, but the \$10 million limit would still apply to the amount of the bond issuance. The Tax Increase Prevention and Reconciliation Act of 2005 (P.L. 109-122) moved the eligible date for the bonds up to December 31, 2006.

Several tax acts in the 1970s and early 1980s denied use of the bonds for specific types of business activities. The Deficit Reduction Act of 1984

restricted use of the bonds to manufacturing facilities, and limited any one beneficiary's use to \$40 million of outstanding bonds. The annual volume of bonds issued by governmental units within a state first was capped in 1984, and then included by the Tax Reform Act of 1986 under the unified volume cap on private-activity bonds. This cap is equal to the greater of \$95 per capita or \$284.56 million in 2012. The cap has been adjusted for inflation since 2003.

Small-issue IDBs long had been an "expiring tax provision" with a sunset date. IDBs first were scheduled to sunset on December 31, 1986 by the Tax Equity and Fiscal Responsibility Act of 1982. Revised sunset dates were adopted three separate times when Congress extended small-issue IDB eligibility for a temporary period. The Omnibus Budget Reconciliation Act of 1993, however, made IDBs permanent.

Since then, small-issue IDB capacity has gradually expanded reflecting Congressional desire to encourage investment in manufacturing. As noted above, the American Jobs Creation Act of 2004 increased the total capital expenditure limitation from \$10 million to \$20 million, but the \$10 million limit would still apply to the amount of the bond issuance. Congress, at the time, thought it was appropriate because the \$10 million limit had not been changed for many years. More recently, as noted earlier, the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) expanded the definition of manufacturing facilities to include facilities that manufacture, create, or produce tangible property or intangible property. This provision expired January 1, 2011.

Assessment

It is not clear that the nation benefits from these bonds. Any increase in investment, jobs, and tax base obtained by communities from their use of these bonds likely is offset by the loss of jobs and tax base elsewhere in the economy. National benefit could arise from relocating jobs and tax base to achieve social or distributional objectives. The use of the bonds, however, is not targeted to specific geographic areas that satisfy explicit federal criteria such as median income or unemployment; all jurisdictions are eligible to benefit from the bonds.

As one of many categories of tax-exempt private-activity bonds, smallissue IDBs have increased the financing costs of bonds issued for public capital. With a greater supply of public bonds, the interest rate on bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds also increases the assets available to individuals and corporations to shelter their income from taxation.

Bibliography

Anderson, John E., and Robert W. Wassmer. *Bidding for Business: The Efficacy of Local Economic Development Incentives in a Metropolitan Area.* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2000, pp. 1-24.

Council of Development Finance Agencies, "Original Research: CDFA 2011 National Volume Cap Report," July 2012.

Maguire, Steven. *Private Activity Bonds: An Introduction.* Library of Congress, Congressional Research Service Report RL31457, Spt. 10, 2010.

- . Private Activity Bonds: An Analysis of State Use, 2001-2006. Library of Congress, Congressional Research Service Report RL34159. April 2008.
- . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638. March 2008.

Stutzer, Michael J. "The Statewide Economic Impact of Small-Issue Industrial Development Bonds," *Federal Reserve Bank of Minneapolis Quarterly Review*, v. 9. Spring 1985, pp. 2-13.

Temple, Judy. "Limitations on State and Local Government Borrowing for Private Purposes." *National Tax Journal*, v. 46, March 1993, pp. 41-53.

- U.S. Congress, Congressional Budget Office. Statement of Donald B. Marron before the Subcommittee on Select Revenue Measures Committee on Ways and Means U.S. House of Representatives. "Economic Issues in the Use of Tax-Preferred Bond Financing," March 16, 2006.
- U.S. Congress, Congressional Budget Office. The Federal Role in State Industrial Development Programs, 1984.
 - . Small Issue Industrial Revenue Bonds, April 1981.
- U.S. Congress, Joint Committee on Taxation, *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

Whitaker, Stephen, "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington, DC: The Urban Institute Press, 1991.

— . "Federal Tax Policy, IDBs and the Market for State and Local Bonds," National Tax Association — Tax Institute of America Symposium: Agendas for Dealing with the Deficit, *National Tax Journal*, v. 37. September 1984, pp. 411-420.

TAX CREDIT FOR EMPLOYER-PAID FICA TAXES ON TIPS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.4	0.4	0.8
2012	0.5	0.4	0.9
2013	0.5	0.5	1.0
2014	0.5	0.5	1.0
2015	0.5	0.5	1.0

Authorization

Section 45B.

Description

Tips received by employees providing, serving, or delivering food and beverages are treated as wages under the Federal Unemployment Tax Act (FUTA) and the Federal Insurance Contributions Act (FICA). This means that employers must pay Social Security and Medicare taxes on those tips, and that employers are required to report any tips received to the Internal Revenue Service (IRS). In the case of tipped employees, the Fair Labor Standards Act (FLSA) allows employers to lower the minimum wage to \$2.13 per hour, provided the combination of tips and cash wages equals the applicable federal minimum wage.

Employers of tipped employees may claim a non-refundable tax credit equal to the FICA taxes paid on tips in excess of those treated as cash wages for the purpose of meeting the minimum wage requirements of the FLSA. The credit is available regardless of whether an employee reports tips received. Under the Small Business and Work Opportunity Tax Act of 2007,

the minimum wage for determining the credit was fixed at the minimum wage in effect on January 1, 2007, which was \$5.15. As a result, the credit applies to tips received by an employee in excess of \$5.15 per hour. No deduction may be claimed for any amount taken into account in computing the credit. The credit is one of the components of the general business credit (GBC) under section 38, but it is exempt from the rule limiting the use of the GBC in a tax year. Unused FICA credits may be carried back one year or carried forward up to 20 years. An employer may elect to not use the credit in any tax year.

In a decision announced on June 17, 2002, the U.S. Supreme Court ruled that the IRS may use an aggregate estimation method to calculate a restaurant's FICA tax liability for unreported tip income. The decision rested on whether tax law authorized the IRS to base the FICA assessment upon an aggregate estimate of all tips paid to a restaurant's employees, or whether the law required the IRS to determine total tip income by estimating each individual employee's tip income separately and summing the individual amounts. The Supreme Court held that the IRS could use an aggregate estimate, provided it was based on a reasonable method.

Impact

Section 45B benefits firms that serve food and beverages by reducing their labor costs. It also boosts tax compliance in the industry by encouraging employers to provide complete and accurate reports of employee tip income to the IRS. Some believe that the law before the enactment of the credit made it possible for employers to reduce their FICA taxes by encouraging or requiring their employees not to report all their tip income. Current tax law imposes no additional burdens on food and beverage employers for complete reporting of tip income. To the extent that all tips are reported and all FICA taxes paid, employees may be eligible for larger payments from the Social Security system when they retire.

Rationale

The credit for employer-paid FICA taxes on tips originated with the Omnibus Budget Reconciliation Act of 1993 (P.L. 101-508). Although it was not included in either the House-passed version of the bill or the amended version passed by the Senate, the credit was inserted in the Conference Committee report without an explanation. Some news reports indicated that it was added at the last minute to mitigate the impact on restaurant industry

sales and revenue of another provision that reduced the deductible portion of the cost of business meals from 80 percent to 50 percent.

The Small Business Job Protection Act of 1996 (P.L. 104-188) clarified two aspects of the credit. First, it specified that the credit was available regardless of whether employees reported the tips on which an employer paid the FICA tax, and that the credit applied to all FICA taxes paid on tips after December 31, 1993, even if some of the tip income was received before that date. The act also stated that tips received by employees delivering food or beverages were eligible for the credit. (Prior law provided the credit only for tips received on the premises of a food or beverage establishment.) According to the legislative history of the credit, Congress intended that the effective date be set at January 1, 1994, but it deemed the Treasury Department's interpretation of that date to be inconsistent with the provision as enacted. The Ways and Means committee report on the bill noted there was no good reason not "to apply the credit to all persons who provide food and beverages, whether for consumption on or off the premises."

As a result of the Small Business and Work Opportunity Act of 2007, employers may calculate their credit for FICA taxes paid on tip income by using a fixed federal minimum wage of \$5.15 per hour, instead of the current minimum wage, which stands at \$7.25 per hour.

Assessment

Many would agree that tips are income that should be treated for tax purposes the same way as other forms of compensation. Waiters, waitresses, and delivery persons are not self-employed individuals; so their tip income should be considered part of their total compensation. When seen from this perspective, tips can be thought of as a surrogate wage that employers might have to pay in their absence. In addition, many would argue that all employers should share equally the costs of providing future benefits for retirees under the Social Security program.

Because Social Security taxes are determined on the basis of an employee's total compensation (including tip income), current law provides a benefit only to food and beverage employers whose employees receive part of their compensation in the form of tips. Other businesses whose employees receive a portion of their compensation in the form of tips (such as cab drivers, hairdressers, etc.) are barred from using the tax credit. For this reason, it can be said that section 45B violates the principle of horizontal equity. Since all other employers pay Social Security taxes on the entire

earnings of their employees, the provision may place some of them at a competitive disadvantage. For example, a carry-out food establishment where tipping is not customary pays the full amount of applicable of Social Security taxes, while a sit-down diner does not.

The restaurant industry has some objections to the current design of the credit. First, it maintains that tip income is not a cash wage but a gift to employees from the customers they serve. Second, industry representatives contend that if the tip income is treated as compensation, then employers should be able to count all tip income in determining the minimum wage (current law allows only a portion of the federal minimum wage to consist of tip income). In addition, the industry argues that the mandatory reporting of tip income forces employers to bear large and unreasonable administrative costs.

Selected Bibliography

Allen, Robin Lee. "FICA Troubles are Back: Operators Arm for Fight" *Nation's Restaurant News*, vol. 28, January 31, 1994, pp. 1, 52.

Bennett, Alison. "IRS to Resume Employer-Only Tip Audits; Agency Expanding Tip Reporting Program," *Daily Tax Report*, Bureau of National Affairs, Inc., No. 82, April 27, 2000, pp. GG1-GG2.

Crowson, Christopher. "Service with a Chagrin: The Problem of Aggregate Estimates of Unreported Tips in the United States v. Fior D'Italia, Inc.," *The Campbell Law Review*, vol. 25, no. 93, Fall 2002, pp. 93-114.

Donovan, Jeremiah S. "Tax-Exempt Organizations and Claiming the Tip Credit," *Tax Adviser*, vol. 30, August 1999, pp. 552-553.

Erickson, Jennifer M. "Fior D'Italia: The "Taxing" Problem of Unreported Tip Income," *Iowa Law Review*, vol. 88, no. 655, March 2003, pp. 655-679.

Fesler, Dan R. and Larry Maples. "Fior D'Italia: Supreme Court Approves Aggregate Method on Tips," *Taxes*, vol. 80, no. 11, November 2002, pp. 53-59.

Hennig, Cherie J., William A. Raabe, and John O. Everett. "Small Business and Work Opportunity Tax Act of 2007: Analysis and Tax Planning Opportunities," *Taxes*, November 2007, pp. 45-47.

McInnes, John T. "Internal Revenue - IRS Aggregate Estimates of Unreported Employee Tip Income to Determine Employer FICA Liability Now Constitutional - United States v. Fior D'Italia, Inc.," *Suffolk Journal of Trail and Appellate Advocacy*, vol. 8, 2003, pp. 179-188.

Myers, Robert J. "Social Security in the Pork Barrel: The Restaurateurs Try To Raid the Treasury," *Tax Notes*, vol. 59, April 19, 1993, pp. 427-428.

Peckron, Harold S. "The Tip Police: Aftermath of the Fior D'Italia Rule," *Catholic University Law Review*, vol. 52, no. 1, Fall 2002, pp. 1-36.

Raby, Burgess J.W. and William L. Raby. "The War on Unreported Cash Tips," *Tax Notes*, vol. 81, November 2, 1998, pp. 605-609.

Robertson, John, Tina Quinn, and Rebecca C. Carr. "Unreported Tip Income: A Taxing Issue; Taxation of Tips," *The CPA Journal*, vol. 76, no. 12, December 2006..

Rosenthal, Ellin. "IRS, Restaurateurs Clash Over FICA Credit on Tip Income," *Tax Notes*, vol. 63, April 4, 1994, pp. 16-17.

Sher, David Lupi. "Forces are Mounting Against IRS's Tip Income Policies," *Tax Notes*, vol. 84, August 2, 1999, pp. 675-680.

Suelzer, Ray. "IRS Hopes to Get Employee TIP Reporting on 'TRAC'," *Taxes*, vol. 73, August 1995, pp. 463-467.

- U.S. Congress, Congressional Budget Office. *Budget Options*. "Replace the Income Tax Credit with a Business Deduction for Employer FICA on Certain Tip Income." Washington, DC: February 2001, p. 436.
- U.S. Congress, Joint Committee on Taxation. "Present Law and Background Relating to the Tax Treatment of Tip Income." Washington, DC: July 13, 2004, pp. 1-7.
- U.S. Department of the Treasury, Internal Revenue Service, Credit for Employer Social Security and Medicare Taxes Paid on Certain Employee Tips, Form 8846 with General Instructions, 2011.
- —Credit for Portion of Employer Social Security Paid with Respect to Employee Cash Tips (IRC 45 B Credit), 2012.
- Wolf, Kelly. "IRS May Collect Employment Taxes on Aggregated Amount of Unreported Tip Income," *Taxes*, vol. 78, June 2000, pp. 35-38.

PRODUCTION ACTIVITY DEDUCTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	3.4	8.9	12.3
2012	4.1	9.3	13.4
2013	4.7	9.7	14.4
2014	5.3	10.3	15.6
2015	5.6	10.8	16.4

Note: The application to Puerto Rico expired in 2011 but may be extended.

Authorization

Section 199.

Description

Qualified production activities income is allowed a deduction from taxable income of 3 percent in 2005-2006, 6 percent in 2007-2009, and 9 percent thereafter. The deduction cannot exceed total taxable income of the firm and is limited to 50 percent of wages related to the qualified activity.

Production property is property manufactured, produced, grown or extracted within the United States. Eligible property also includes domestic film, energy, and construction, and engineering and architectural services. For the latter, the services must be produced in the United States for construction projects located in the United States. The law specifically excludes the sale of food and beverages prepared at a retail establishment, the transmission and distribution of electricity, gas, and water, and receipts from property leased, licensed, or rented to a related party. The benefits are also allowed for Puerto Rico for 2007 through 2011. Oil extraction is permanently limited to a 6% deduction. Several special modifications are

made for films including a broader definition of wages and some other revisions.

There are rules that allow the allocation of the deduction to pass through entities and cooperatives. The provision also allows the revocation without penalty of a prior election to treat timber cutting as the sale of a capital asset. The deduction is also allowed under the alternative minimum tax. The tax expenditure is the tax savings due to the deduction.

Impact

This provision lowers the effective tax rate on the favored property, in most cases when fully phased in, from the top corporate tax rate of 35% to 31.85%. The deduction is available to both corporations and unincorporated businesses, but primarily benefits corporations. For the many proprietorships that have few or no employees, the benefit will be limited or absent, because of the wage requirement, unless the firm incorporates.

In a letter dated September 22, 2004 to Mark Prater and Patrick Heck, responding to a query about the similar (although slightly different) Senate version of the provision, the Joint Tax Committee indicated that three quarters of the benefit would have gone to corporations, 12 percent would have gone to Subchapter S firms (smaller incorporated firms that elect to be treated as partnerships) and cooperatives, 9 percent would have gone to partnerships, and 4 percent to sole proprietorships. Based on the revenue estimates (\$3 billion for 2006) and projected corporate tax receipts of \$249 billion for that year, the implication is that around a third of corporate activity qualifies.

The beneficial treatment given to income from these activities encourages more investment in manufacturing and other production activities and less in sales and services. It also encourages more equity investment in the affected sectors.

Rationale

This provision was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357), a bill that repealed the Extraterritorial Income provision that was found to be an unacceptable export subsidy by the World Trade Organization. The stated purpose was to enhance the ability of firms to compete internationally and to create and preserve manufacturing jobs.

The Tax Increase Prevention Act of 2006 modified the provision by clarifying that wages for purposes of the deduction limit were those relating to domestic production activities. The Tax Relief and Health Care Act (P.L. 109-432) added the benefit for Puerto Rico. The Emergency Economic Stabilization Act of 2008, which included earlier tax provisions from H.R. 7060 extended the Puerto Rico treatment through 2009, restricted the deduction for oil extraction, and expanded the treatment of films (P.L. 110-343). The Tax Relief, Unemployment Insurance Authorization and Job Creation Act of 2010 (P.L. 111-312) extended the benefit for Puerto Rico through 2011.

A repeal of the provision was included as part of Chairman Rangel's (Ways and Means) tax reform proposal in 2007 (The Tax Reduction and Reform Act of 2007) but was not enacted.

Assessment

The provision should somewhat expand the sector qualifying for the benefit and contract other sectors. It will introduce some inefficiency into the economy by diverting investment into this area, although it will also primarily lower the burden on corporate equity investment which is more heavily taxed than other forms of investment and among qualifying firms reduce the incentive for debt finance. This latter effect would produce an efficiency gain.

Economists in general do not expect that there is a need to use tax incentives to create jobs in the long run because job creation occurs naturally in the economy. Nor can tax provisions permanently affect the balance of trade, since exchange rates would adjust.

There has been concern about the difficulty in administering a tax provision that provides special benefits for a particular economic activity. Firms will have an incentive to characterize their activities as eligible and to allocate as much profit as possible into the eligible categories. A number of articles written by tax practitioners and letters written to the Treasury indicate that many issues of interpretation have arisen relating to the definition of qualified activity, treatment of related firms, and specific products such as computer software and films and recording. Canada had adopted a similar provision several years ago and repealed it because of the administrative complications.

Selected Bibliography

Deloitte Tax LLP, "Producing Results: An Analysis of the New Production Activities Deduction," *Tax Notes*, February 21, 2005, pp. 961-984.

Dilley, Steven C. and Fred Jacobs, "The Qualified Production Activities Deduction: Some Planning Tools," *Tax Notes*, July 4, 2005, pp. 87-98.

Gravelle, Jane G. Comparison of Tax Incentives for Domestic Manufacturing in Current Legislative Proposals. Library of Congress, Congressional Research Service Report RL32103, Washington, DC: October 1, 2004.

Gravelle, Jane G. The Tax Reduction and Reform Act of 2007: An Overview, Congressional Research Service Report R134249, Washington, DC: June 20, 2008.

Jenks, Carl M. "Domestic Production Deduction: FAQs and a Few Answers," *Tax Notes*, August 28, 2006, pp. 751-757.

McClellan, John, "Five Things an Economist Thinks are Important in Analyzing the Domestic Production Deduction: What Accountants and Lawyers Should Know About Economists," *National Tax Journal*, vol. 59, September, 2006, pp. 579-584.

Mills, Lillian, "Five things Economists and Lawyers Can Learn From Accountants: An Illustration Using the Domestic Production Activities Deduction, "National Tax Journal, vol. 59, September, 2006, pp. 585-598.

Rojas, Warren. "New Manufacturing Deduction Presents Many Open Ouestions." *Tax Notes*, October 18, 2004, pp. 279-280.

Sherlock, Molly, *The Section 199 Production Activities Deduction: Background and Analysis*. Library of Congress, Congressional Research Service Report R41988. Washington, DC: February 27. 2012.

- U.S. Congress, House, Conference Report on the American Jobs Creation Act, Report 108-77, Washington, DC: U.S. Government Printing Office, 2004.
- U.S. Congress, Joint Committee on Taxation, *Technical Explanation of H.R. 7060, The Renewable Energy and Job Creation Act of 2008*, JCX-75-08, September 25, 2008, Posted at: [http://www.house.gov/jct/x-75-08.pdf].

White, George. "Dead Space 2: Tax Rip-Off?" Tax Notes, October 3, 2011, pp. 101-103.

DEDUCTION OF CERTAIN FILM AND TELEVISION PRODUCTION COSTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(¹)
2012	$\binom{1}{2}$	(¹)	(¹)
2013	$\binom{1}{2}$	(¹)	(¹)
2014	(¹)	(¹)	(¹)
2015	(¹)	(¹)	(¹)

⁽¹⁾ De minimis positive or negative cost.

Note: This provision was not included in the January 2012 list and expired in 2011. It may be extended. Estimates reflect values from prior tax expenditure lists.

Authorization

Section 181.

Description

The cost of producing films and television programs must be depreciated over a period of time using the income forecast method (which allows deductions based on the pattern of expected earnings). This provision allows production costs for qualified film and television shows to be deducted when incurred. Eligible productions are restricted to those with a cost of \$15 million or less (\$20 million if produced in certain designated low income areas) and in which at least 75 percent of the compensation is for services performed in the United States. The provision expired at the end of 2011. Only the first 44 episodes of a television series qualify, and sexually explicit productions are not eligible.

Impact

Expensing provides a benefit because deductions can be taken earlier. For example, at a 7 percent interest rate, the value of taking a deduction currently is 40 percent greater than taking a deduction five years from now (1+.07)⁵. The benefit is greatest per dollar of investment for those productions whose expected income is spread out over a long period of time and whose production period is lengthy. This provision encourages film and television producers to locate in the United States and counters the growth in so-called "runaway" production.

The original provision had a dollar ceiling that targeted the benefit to smaller productions. The average cost of producing a movie for theatrical release in 2003 (by members of the Motion Picture Association of America) was \$63.8 million, so that many of these movie productions would not have qualified. A revision in 2008 that allowed any otherwise-eligible film to qualify for the deduction up to the dollar limit meant the benefit was extended to larger productions, although the limit still focuses the provision to smaller ones, compared to a provision with no dollar cap. One study found that made-for-television movies and mini-series, in particular, have experienced relocation abroad, and that most of this business has gone to Canada. Many countries, including Canada, provide subsidies for production.

Rationale

This provision was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357) to extend through 2008. The purpose was to discourage the "runaway" production of film and television production to other countries, where tax and other incentives are often offered. The provision adopted at that time was restricted to productions costing \$15 million or less (\$20 million or less if in certain designated areas); the Emergency Economic Stabilization Act (P.L. 110-343), adopted in October of 2008 allowed the first \$15 million (\$20 million) of any otherwise qualified production to be expensed and extended the qualifying period through 2009. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) extended the provision through 2011.

Assessment

This provision provided an incentive to remain in the United States, at least for firms that are profitable enough to have tax liability. The magnitude of the benefit depended on the average lag time from production to earning

income. If that lag is five years and the discount rate is 7 percent, for example, the value of the deduction is increased by 40 percent, and with a 35-percent tax rate, the reduction in cost would be about 14 percent. If the average lag is only a year, the reduction is slightly over two percent.

In general, special subsidies to industries and activities tend to lead to inefficient allocation of resources. Moreover, in the long run, providing subsidies to counter those provided by other countries will not necessarily improve circumstances, unless they induce both parties to reduce or eliminate their subsidies. At the same time, individuals who have specialized in film and television production are harmed when production shifts to other countries, and the disruption can be significant when caused through provision of large subsidies or tax incentives.

Given that tax subsidies cannot benefit firms that do not have tax liability, the scope of this provision may be narrower than would be the case with a direct subsidy.

Selected Bibliography

Beer, Steen C. and Maria Miles, "Relief Effort," *Filmmaker Magazine*, Winter 2005, http://www.filmmakermagazine.com/winter2005/line items/relief_effort.php.

— . Gravelle, Jane G. Tax Reform Options: Incentives for Capital Investment and Manufacturing. Statement before the U.S. Senate Finance Committee, March 6. 2012, at:

http://www.finance.senate.gov/imo/media/doc/Testimony%20of%20Jane%20Gravelle.pdf.

Menaker, Mitchell E. "Hollywood Wins Congressional Award," *Tax Notes*, December 15, 2008, pp. 1277-1280.

Monitor Corporation, U.S. Runaway Film and Television Production Study Report, Prepared for the Screen Actors Guild and Directors Guild of America, Cambridge MA, 1999.

Moore, Schuyler M. "Film-Related Provisions of the American Jobs Creation Act," *Tax Notes*, December 20, 2204, pp. 1667-1671.

Motion Picture Association of America. Worldwide Market Research, U.S. Entertainment Industry: 2003 MPA Market Statistics, 2004.

- U.S. Congress, House, *Conference Report on the American Jobs Creation Act*, Report 108-77, Washington, DC: U.S. Government Printing Office, 2004.
- U.S. Department of Commerce. The Migration of U.S. Film and Television Production: Impact of "Runaways" on Workers and Small Business in the U.S. Film Industry, January 18, 2001.

U.S. Congress, Joint Committee on Taxation, *Technical Explanation of H.R. 7060, The Renewable Energy and Job Creation Act of 2008*, JCX-75-08, September 25, 2008, Posted at: [http://www.house.gov/jct/x-75-08.pdf].

TAX CREDIT FOR THE COST OF CARRYING TAX-PAID DISTILLED SPIRITS IN WHOLESALE INVENTORIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	(¹)	(1)
2012	-	$\binom{1}{2}$	(¹)
2013	_	(¹)	(¹)
2014	-	(¹)	(¹)
2015	-	(¹)	(¹)
	2011 2012 2013 2014	2011 - 2012 - 2013 - 2014 -	2011 - (¹) 2012 - (¹) 2013 - (¹) 2014 - (¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 5011.

Description

This credit applies to domestically bottled distilled spirits purchased directly from the bottler. Distilled spirits that are imported in bulk and then bottled domestically also qualify for the credit. The credit is calculated by multiplying the number of cases of bottled distilled spirits by the average tax-financing cost per case for the most recent calendar year ending before the beginning of the taxable year. A case is 12, 750-milliliter bottles of 80-proof alcohol. The average tax-financing cost per case is the amount of interest that would accrue at corporate overpayment rates during an assumed 60-day holding period, on an assumed tax rate of \$25.68 per case.

Impact

The excise tax on distilled spirits is imposed when distilled spirits are removed from the plant where they are produced. In the case of imported distilled spirits that are bottled, the excise tax is imposed when they are

removed from a U.S. customs bonded warehouse. For distilled spirits imported in bulk containers for bottling in the United States, the excise tax is imposed in the same way as for domestically produced distilled spirits – when the bottled distilled spirits are removed from the bottling plant.

The current federal excise tax rate on distilled spirits is \$13.50 per proof gallon.

Assuming an interest rate in the range of 5 to 6 percent, the tax credit would save wholesalers approximately \$0.25 a case or \$0.02 per bottle of distilled spirits. At an interest rate of 1 to 2 percent, it would save approximately \$0.05 per case or less than a half-cent (\$0.005) per bottle.

Rationale

The tax credit is intended to help equalize the differential costs associated with wholesaling domestically produced distilled spirits compared with imported distilled spirits. Under current law, wholesalers are not required to pay the federal excise tax on bottled imported spirits until the spirits are removed from a bonded warehouse and sold to a retailer. It is assumed that the federal excise tax on domestically produced distilled spirits is passed forward as part of the purchase price when the distiller transfers the product to the wholesaler. If so, this raises the cost to wholesalers of domestically distilled spirits relative to bottled imported spirits. The credit is designed to compensate the wholesaler for the foregone interest that could have been earned on the funds that were used to pay the excise taxes on the domestically produced distilled spirits being held in inventory (the opportunity cost of the excise tax payment).

Assessment

Under current law, tax credits are not allowed for the costs of carrying products in inventory on which an excise tax has been levied. Normally, the excise tax that is included in the purchase price of an item is deductible as a cost when the item is sold.

Allowing wholesalers a tax credit for the interest costs (or float) of holding excise-tax-paid distilled spirits in inventory confers a tax benefit on the wholesalers of distilled spirits that is not available to other businesses that also carry tax-paid products in inventory. For instance, wholesalers of beer and wine also hold excise-tax-paid products in their inventories and are engaged in similar income-producing activities similar to wholesalers of

distilled spirits. But beer and wine wholesalers are not eligible for this tax credit.

Given its relatively small size, the credit is unlikely to have much effect on price differentials between domestically produced distilled spirits and imported bottled distilled spirits. The credit is also unlikely to produce much tax savings for small wholesalers. Most of the tax benefits from this credit likely accrue to large-volume wholesalers of distilled spirits.

Selected Bibliography

U.S. Congress, Joint Committee on Taxation. Summary Description of the "Highway Reauthorization and Excise Tax Simplification Act of 2005," Title V of H.R. 3, as Passed by the Senate on May 17, 2005. JCX-41-05, June 13, 2005, pp. 9-10.

—, Committee of Conference. Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. Report 109-203, July 28, 2005, pp. 1132-1133.

EXPENSING OF COSTS TO REMOVE ARCHITECTURAL AND TRANSPORTATION BARRIERS TO THE HANDICAPPED AND ELDERLY

Estimated Revenue Loss [In billions of dollars]

Fiscal year Total **Individuals** Corporations (¹) 0.1 0.12011 0.1 0.12012 0.10.12013 (¹) 0.1 2014 0.10.1 0.12015

Authorization

Section 190.

Description

Generally, an improvement to a depreciable asset such as a building or motor vehicle is treated for tax purposes as a capital expenditure. This means that the cost of the improvements should be recovered by using the appropriate depreciation method and class life for the asset.

Under section 190, however, a business taxpayer may deduct (or expense) up to \$15,000 of the expenses incurred in a single tax year for removing physical barriers to handicapped or elderly (age 65 and older) individuals in qualified facilities or public transportation vehicles that the taxpayer owns or leases. None of the costs associated with constructing a new facility or vehicle, or undertaking a complete renovation of an existing facility to make it more accessible to those individuals, qualifies for the deduction. Qualified expenses in excess of \$15,000 must be capitalized; they

⁽¹⁾ Positive tax expenditure of less than \$50 million.

cannot be carried over. In the case of partnerships, the \$15,000 limit applies separately to a partnership and its individual partners.

A qualified facility is broadly defined to include any or all portions of a building, structure, equipment, road, walkway, parking lot, or similar real or personal property. A vehicle qualifies for the \$15,000 expensing allowance if it offers transportation services to the public; it may be a bus, train, or other mode of public transportation. For example, the modification of a vehicle used to transport a business taxpayer's customers to make it more accessible to or usable by the elderly and handicapped could qualify for the expensing allowance.

To qualify for the expensing allowance, barrier removal projects have to meet design standards approved by the Architectural and Transportation Barriers Compliance Board. These standards apply to projects involving buses, rail cars, grading, walkways, parking lots, ramps, entrances, doors and doorways, stairs, floors, toilet facilities, water fountains, public telephones, elevators, light switches and similar electrical controls, the identification of rooms and offices, warning signals, and the removal of hanging lights, signs, and similar fixtures.

Besides the expensing allowance, eligible small firms may claim a nonrefundable disabled access tax credit under section 44 for expenses they incur to make their operations more accessible to disabled individuals. The credit is equal to 50 percent of eligible expenditures in a tax year that are over \$250 and up to \$10,250; so the maximum annual credit an eligible business taxpaver can claim is \$5,000. The credit applies to a wider range of expenses than the expensing allowance: all amounts paid for the cost of enabling the taxpayer to comply with applicable requirements under the Americans With Disabilities Act of 1990 (ADA, P.L. 101-336) can be used to compute the credit. A firm claiming the credit may also use the section 190 expensing allowance, but the expenses eligible for the allowance must be reduced by the amount of the credit. The credit is only available to eligible small businesses, defined as businesses employing no more than 30 full-time workers or having gross receipts of \$1 million or less in the preceding tax year. (See the entry on "Tax Credit for Disabled Access Expenditures.")

Impact

The provision gives firms an incentive to modify their facilities and transport vehicles to make them more accessible to the elderly and

handicapped by lowering the cost of capital for such an investment. Like all accelerated depreciation allowances, the provision defers a small portion of the tax on any income earned by firms making the requisite improvements. In effect, the provision increases the present value of the depreciation allowances a firm may claim for making the eligible investment.

The tax expenditure associated with the provision lies in the additional tax savings from expensing compared with depreciating the investment.

Rationale

The expensing allowance under section 190 originated with the Tax Reform Act of 1976 (P.L. 94-455). The act set the maximum allowance at \$25,000 for a single tax year and specified that it would expire at the end of 1979.

P.L. 96-167 extended the allowance through 1982, without modifying it. Congress permitted the allowance to expire at the end of 1982.

The Deficit Reduction Act of 1984 (P.L. 98-369) reinstated the allowance from January 1, 1984 through December 31, 1985, and raised the maximum deduction to \$35,000.

The Tax Reform Act of 986 (P.L. 99-514) permanently extended the allowance for tax years after 1985.

The Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) lowered the maximum allowance to its present amount of \$15,000.

Assessment

By establishing the expensing allowance under section 190, Congress was using the tax code to promote certain social and economic goals. In this case, the likely goal was to engage the private sector in expanding employment opportunities and improving access to goods and services for the elderly and disabled. Supporters of the provision have long contended that without it, most firms would be unlikely to remove physical barriers to the elderly and disabled from their facilities and transport systems.

This rationale raises some questions about the efficacy and desirability of the provision. In considering whether to retain or modify the expensing allowance, lawmakers may want to know how much firms have responded to it by increasing their spending on the removal of physical barriers to the

elderly and the handicapped from their facilities and transport vehicles. Congress may further want to know whether any increases in this spending have increased employment and access to goods and services among the elderly and handicapped since the provision was enacted 32 years ago. Congress may also be interested in comparing the cost-effectiveness of the expensing allowance with other approaches to achieving the goals that led to its creation, such as a government mandate that all firms remove barriers to the elderly and disabled in their operations, backed by strict enforcement, or a tax credit for the same types of expenses that are eligible for the allowance. Lawmakers may also want to investigate how these tax approaches to increasing business investment in improving accommodations for the disabled interact with federal spending programs to support the same purposes.

Unfortunately, the data needed to address these issues are not readily available. It is not even clear from the business tax data published by the Internal Revenue Service to what extent firms have taken advantage of the section 190 expensing allowance. No studies of the efficacy of the allowance or small business tax credit under section 44 appear to have been done. What is known is that the employment of working-age disabled people fell during the 1990s, in spite of the passage of the ADA. More statistics on disabled people in the work force should become available in the next few years. In June 2008, the Bureau of Labor Statistics began to include questions designed to identify persons with a disability in their monthly Current Population Survey, which is used to produce statistics on employment and unemployment in the United States; 2009 is the first calendar year for which annual averages are available for people identified as having a disability.

Because the allowance covers only a fraction of the expenses a firm incurs in accommodating the needs of disabled employees, it can be argued that its incentive effect is too small to have much of an impact on employment levels for the disabled. Further investigation of the link between financial incentives like the section 190 expensing allowance or the section 44 tax credit and hiring rates for the disabled may yield useful findings for lawmakers.

Selected Bibliography

Bollman, Andy and E.H. Pechan & Associates. Evaluation of Barrier Removal Costs Associated with 2004 American with Disabilities Act Accessibility Guidelines. Small Business Administration, Office of Advocacy, Washington, DC, November 2007.

Bruyere, Susanne M., William A. Erickson, and Sara A. VanLooy. "The Impact of Business Size on Employer ADA Response." *Rehabilitation Counseling Bulletin*, vol. 49, no. 4 (Summer 2006), pp. 194-207.

McLaughlin, Thomas D. "The Americans With Disabilities Act." The Tax Adviser, vol. 23, no. 9 (September 1992), pp. 598-602.

National Council on Disability. The Impact of the Americans with Disabilities Act: Assessing the Progress Toward Achieving the Goals of the ADA. Washington, DC, July 26, 2007.

Nelsestuen, Linda and Mark Reid. "Coordination of Tax Incentives Associated with Compliance with the Americans with Disabilities Act." *Taxes: The Tax Magazine*, February 1, 2003.

Schaffer, Daniel C. "Tax Incentives." *The Milbank Quarterly*, vol. 69 (1991), pp. 293-312.

Stapleton, David C., Richard V. Burkhauser, and Andrew J. Houtenville. *Has the Employment Rate of People with Disabilities Declined? Policy Brief.* Cornell University, Employment and Disability Institute, December 2004.

- U.S. Department of Justice, Civil Rights Division. *Tax Incentives for Business*. December 20, 2006. Posted on the Department of Justice website at http://www.ada.gov/taxincent.htm, visited November 30, 2012.
- U.S. Department of Labor, Bureau of Labor Statistics. *Persons with a Disability: Labor Force Characteristics*—2009. News Release USDL-10-1172, August 25, 2010.

REDUCED TAX RATE ON SMALL BUSINESS STOCK GAINS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.3	-	0.3
2012	0.4	-	0.4
2013	0.3	-	0.3
2014	0.5	-	0.5
2015	0.7	-	0.7

Authorization

Section 1202.

Description

Under current law, gains on the sale of capital assets held longer than one year generally are taxed at rates lower than the rates for ordinary income. From 2008 to 2012, individual taxpayers in the 10-percent and 15-percent tax brackets pay no tax on long-term capital gains, whereas long-term gains reported by taxpayers in higher brackets are taxed at a fixed rate of 15 percent.

Section 1202 of the federal tax code allows non-corporate taxpayers (including passthrough entities like partnerships and subchapter S corporations) to exclude from gross income 50 percent of any gain from the sale or exchange of qualified small business stock (QSBS) issued after August 10, 1993. The exclusion rises to 75% for stock acquired after February 17, 2009 and before September 27, 2010, and to 100% for stock acquired after September 27, 2010 and before January 1, 2013. An eligible taxpayer must acquire the stock at its original issue and hold it for a minimum of five years. There is an annual limit on the exclusion for gains on

the sale of QSBS issued by the same firm: the exclusion cannot exceed the greater of \$10 million, less any cumulative gain excluded by the taxpayer in previous tax years, or ten times a taxpayer's adjusted basis in the stock.

When the exclusion was enacted in 1993, the maximum long-term capital gains tax rate for individuals was 28 percent. Although this rate has been reduced several times since then and stands at 15 percent in 2010, the portion of the gain on the sale of QSBS subject to taxation is still taxed at a rate of 28 percent. Consequently, the effective tax rate for gains on the sale of QSBS when the exclusion is 50% is 14 percent, compared to a maximum effective tax rate of 15 percent on long-term gains for other capital assets.

A stock must satisfy certain requirements to qualify as QSBS. First, it must be issued by a C corporation with no more than \$50 million in gross assets before and at the time the stock is issued. Second, the issuing corporation must employ at least 80 percent of those assets in a qualified trade or business during "substantially all" of the required five-year holding period for the exclusion; in this case, a qualified trade or business encompasses specialized small business investment companies (SSBICs) licensed under the Small Business Investment Act of 1958 and all lines of business except the following: health care, law, engineering, architecture, food service, lodging, farming, insurance, finance, or mining. Third, the stock must be issued after August 10, 1993. Fourth, it must be acquired by a non-corporate taxpayer at its original issue in exchange for money or property, or as compensation for services performed for the issuing firm. So purchases of stock issued by eligible firms through an initial public offering could qualify for the partial exclusion. Finally, the buyer must hold the stock more than five years, which is to say that the earliest date anyone was able to take advantage of the exclusion was August 12, 1998.

Under section 1045, eligible taxpayers have the option of rolling over any capital gain from the sale of QSBS they have held for more than six months. To take advantage of this option, they must use the proceeds from the sale to purchase different QSBS within 60 days of the transaction. A capital gain is recognized only to the extent that the amount from the sale exceeds the cost of the replacement stock. Any unrecognized capital gain from the sale lowers the taxpayer's basis in the new QSBS.

Compared to the 50-percent exclusion that was available from August 11, 1993 to February 17, 2009, more generous tax treatment is available for QSBS issued by corporations located in so-called empowerment zones (EZs). In this instance, non-corporate taxpayers may exclude 60 percent of

any gain from the sale or exchange of the stock, provided certain conditions are met. (The special 75-percent and 100-percent exclusions do not apply to the sale or exchange of qualified EZ stock.) Specifically, the seller must acquire the stock after December 21, 2000 and hold it for more than five years. In addition, the corporation issuing the stock not only has to meet the regular requirements for the partial exclusion, but it must derive at least 50 percent of its gross income from business activities conducted within the EZ, and at least 35 percent of its employees must reside in the EZ. No enhanced exclusion is available for the sale or exchange of EZ-related QSBS after December 31, 2014.

The partial exclusion is considered a preference item for the purpose of computing the alternative minimum tax (AMT). Under section 57(a)(7), 7 percent of the excluded gain is added to AMT taxable income for sales and exchanges of QSBS taking place between May 7, 2003 and December 31, 2010. (Starting in 2011, the share of excluded gain that is added to AMT taxable income rises to 42 percent.) Such an adjustment raises the effective capital gains tax rate from 14 percent under the regular income tax to nearly 15 percent under the AMT.

Impact

The partial exclusion for gains on the sale or exchange of QSBS seems intended to increase the flow of equity capital to new ventures, small firms, and SSBICs that are having difficulty raising capital from traditional sources such as banks, angel investors, family members, or venture capital firms. It does this by boosting the potential after-tax rate of return a qualified investor could earn by buying and selling QSBS, relative to other investments.

The tax expenditure from the partial exclusion arises from the small difference between the effective capital gains tax rate that applies to sales or exchanges of QSBS and the maximum effective capital gains tax rate, under both the regular income tax and the AMT, on the sale or exchange of other capital assets.

Most of the benefits from the partial exclusion are captured by small business owners and high-income individuals with relatively high tolerances for risk.

Rationale

The partial exclusion for capital gains on the sale or exchange of QSBS originated with the Omnibus Budget Reconciliation Act of 1993 (OBRA93,

P.L. 103-66). While the legislative history of the act did not say as much, the design of the exclusion left little doubt that it was targeted at small research-intensive manufacturing firms. OBRA93 specified that half of the excluded gain was to be treated as an AMT preference item.

Under the Taxpayer Relief Act of 1997 (TRA, P.L. 105-34), individuals holding QSBS for more than six months gained the option of deferring the recognition of any gain from the sale or exchange of the stock by reinvesting (or rolling over) the proceeds in another QSBS within 60 days of the transaction. The act also reduced the portion of the excluded gain treated as an AMT preference item from 50 percent to 42 percent for sales or exchanges after May 7, 1997 and before January 1, 2001.

The IRS Restructuring and Reform Act of 1998 (P.L. 105-206) extended the rollover option to non-corporate taxpayers besides individuals, such as partnerships and S corporations. It also reduced the portion of the excluded gain regarded as an AMT preference item from 42 percent to 28 percent for sales or exchanges of QSBS occurring after December 31, 2000.

Under the Community Renewal Tax Relief Act of 2000 (P.L. 106-554), 60 percent of the gain from the sale or exchange of QSBS issued by qualified corporations with a substantial economic presence in EZs could be excluded from gross income.

The Jobs and Growth Tax Relief Reconciliation Act of 2003 (P.L. 108-27) reduced the share of the excluded gain considered an AMT preference item to 7 percent for sales or exchanges of QSBS after May 6, 2003. As this change was subject to a sunset provision included in the act, it does not apply to sales or exchanges of qualified stock occurring after December 31, 2010. Beginning in 2011, 42 percent of the amount excluded from capital gains taxation will be considered an AMT preference item.

In a bid to expand access to equity capital for new ventures, the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) raised the gains exclusion to 75% for QSBS purchased after February 17, 2009 and before January 1, 2011.

The exclusion was further increased to 100% for qualified small business stock acquired after September 27, 2010 and before January 1, 2012 under the Small Business Jobs Act of 2010 (P.L. 111-240). An additional one year extension was enacted in the Tax Relief, Employment insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). Congress may

choose to extend this provision, but has yet to do so as of the publication date of this report.

Assessment

It appears that the provision is intended to facilitate the formation and growth of small firms involved in developing new manufacturing technologies and organized as C corporations by increasing their access to equity capital. It does this by giving investors (individuals as well as non-corporate business entities such as venture capital funds organized as partnerships) a robust incentive to acquire a sizable equity stake in such firms. When the partial exclusion was enacted in 1993, it amounted to a significant reduction in the tax burden on the returns to investment in QSBS, relative to the tax burden on the returns to similar investments. Since then, the incentive has diminished in value as the maximum long-term capital gains tax rate has been lowered and the reach of the AMT has expanded.

The design and purpose of the provision raise several policy issues. Two concern the rationale for the partial exclusion and its efficacy. Lawmakers weighing arguments for and against legislative proposals to enhance the exclusion may wish to know whether such a tax subsidy is justified on economic grounds. They may also want to know to whether it has had its intended effect, and if so, to what extent.

Proponents of the provision say it is needed to address the funding gaps that hamper the formation and growth of many small firms seeking to develop new technologies. In their view, these gaps result from the failure of financial markets to provide sufficient financing for all equally promising business ventures. Few doubt that established firms of all sizes are more likely to have success in raising the debt or equity needed to finance a new venture than a small start-up firm intent on entering the same line of business. Such a disparity, say proponents, reflects a market failure known as information asymmetries. The asymmetries arise when entrepreneurs or small business owners know more about the nature of and prospects for a new business venture than lenders or outside investors. In theory, these differences can produce conflicts of interest involving moral hazard and adverse selection that can affect the amount and price of equity and debt capital provided to new ventures. Proponents argue that small start-up firms involved in developing new technologies are especially vulnerable to these capital market imperfections. Their growth potential tends to be difficult to evaluate for several reasons. First, the potential rests largely on intellectual property. Second, new ventures dependent on research for their survival typically lack tangible assets that might serve as collateral in the early stages of their growth. Third, their products are untested in markets and often exhibit relatively rapid rates of obsolescence. So proponents see the partial exclusion as a constructive means of addressing the imperfections that prevent capital markets from providing adequate funding to small start-up firms.

Critics of the partial exclusion and other government subsidies for investment in small firms say the proponents' argument lacks validity. In their view, there is no conclusive evidence that too few small start-up firms are formed over time, or that too many small start-up firms fail to grow into thriving enterprises, or that imperfections in financial markets systematically and consistently prevent small start-up firms from gaining access to the financing they need to survive, innovate, and grow. As a result, say critics, a policy initiative like the partial exclusion is bound to entail significant efficiency costs. Of particular concern is the exclusion's impact on the domestic allocation of financial capital. For critics, the partial exclusion is likely to steer capital toward eligible C corporations and away from its most productive uses.

Is there any evidence to support the view that the provision has had its intended effect of increasing the flow of equity capital to eligible firms? Unfortunately, existing information about the partial exclusion's effects is so scant that a definitive answer cannot be given. Though more than 12 years have passed since holders of QSBS were first able to take advantage of the exclusion (August 12, 1998), no study has been done that assesses its impact on the cash flow, capital structure or investment behavior of firms issuing the stock. Still, there is reason to believe that the partial exclusion has not lived up to the initial hopes about its efficacy. Reductions in the maximum longterm capital gains tax rate since 1993 have reduced the initial capital gains tax advantage of investing in QSBS instead of other corporate stock to a single percentage point from 2008 to 2010. In the minds of many investors, such a small difference must be compared to the longer required holding period for QSBS and the greater risks associated with buying stock issued by relatively new and untested firms. In addition, the incidence of the AMT has increased since the exclusion was enacted in 1993. Individuals paying the AMT are required to add a portion of any partial exclusion they claim to their AMT taxable income as a preference item, increasing the effective tax rate for capital gains on OSBS.

Selected Bibliography

Abromowicz, Kenneth F., and Steven R. Martucci. "Fifty-Percent Exclusion of Gain from Small Business Stock — Incentive or Mine Field?," *CPA Journal*, October 1994, pp. 48-56.

Brierly, Peter. "The Financing of Technology-Based Small Firms: A Review of the Literature," *Quarterly Bulletin*, Bank of England, Spring 2001, pp. 64-83.

Cohen, Ann Burstein. "Is the Qualified Small Business Stock Exclusion Worthwhile?," *Tax Adviser*, December 1998, pp. 856-862.

Cole, Rebel A. What Do We Know about the Capital Structure of Privately held Firms? Evidence from the Surveys of Small Business Finances, Small Business Administration, Office of Advocacy. Washington, DC: May 2008.

DeLap, Richard L. and Michael G. Brandt. "RRA '93 Cut in Capital Gains Tax Encourages Investment in Small Business," *Journal of Taxation*, May 1994, pp. 266-271.

Garrison, Larry R. "Tax Incentives for Businesses in Distressed Communities: Businesses in Designated Distressed Areas Are Entitled to Various Tax Incentives," *Tax Adviser*, Vol. 38, No. 5, May 1, 2007, pp. 276-283.

Gravelle, Jane G. Capital Gains Taxes: An Overview. Library of Congress, Congressional Research Service. Report 96-769, Washington, DC: January 5, 2011.

Guenther, David A. and Michael Willenborg. "Capital Gains Tax Rates and the Cost of Capital for Small Business: Evidence from the IPO Market," *Journal of Financial Economics*, Vol. 53, No. 3, September 1999, pp. 385-408.

Guenther, Gary L. Small Business Tax Benefits: Overview and Economic Justification, Library of Congress, Congressional Research Service, Report RL32254, Washington, DC: January 16, 2012.

Holtz-Eakin, Douglas. "Should Small Businesses be Tax-Favored?" National Tax Journal, Vol. 48, No. 3, September 1995, pp. 387-395.

Levy, Melanie Warfield. "Exclusion of Capital Gain on Sale of QSB Stock," *Business Entities*, Vol. 7, No. 4, July/August 2005, pp. 18-35.

Ou, Charles and George W. Haynes. Uses of Equity Capital by Small Firms — Findings from the Surveys of Small Business Finances (for 1993 and 1998), Small Business Administration, Office of Advocacy, Washington, DC: May 2003.

Poterba, James M. "Capital Gains Tax Policy Toward Entrepreneurship," *National Tax Journal*, Vol. 42, No. 3, September 1989, pp. 375-389.

Sergi, Lisa D., Scott S. Jones, and Mary B Kuusisto. Small Business Stock Incentives: Time for a Fresh Approach, National Venture Capital

Association, available at: http://www.nvca.org/index.php?option=com_docman&task=cat view&gid=62&Itemid=93.

Shane, Scott. The Importance of Angel Investing in Financing the Growth of Entrepreneurial Ventures, Small Business Administration, Office of Advocacy, Washington, DC: September 2008.

Sullivan, Martin A. "Angels, the No Man's land, and Taxing Entrepreneurship," *Tax Notes*, July 30, 2001, pp. 593-597.

Weinberg, John A. "Firm Size, Finance, and Investment," *Economic Quarterly*, Federal Reserve Bank of Richmond, Vol. 80, No. 1, Winter 1994, pp. 19-40.

White, John B., Jill M. Lockwood, and Morgan P. Miles. "The Access to Capital for Entrepreneurs Act of 2007: an Extension of the Impact of Tax Policy on Informal Venture Investing," *Entrepreneurial Executive*, Vol. 14, January 1, 2009, pp. 25-31.

Wood, Robert W. "Number Crunching and Qualified Small-Business Stock Gains," *Tax Notes*, April 23, 2007, pp. 343-348.

DISTRIBUTIONS IN REDEMPTION OF STOCK TO PAY VARIOUS TAXES IMPOSED AT DEATH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	-	(¹)
2012	0.1	-	0.1
2013	0.1	-	0.1
2014	0.2	-	0.2
2015	0.2	-	0.2

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 303.

Description

When a shareholder in a closely held business dies, a partial redemption of stock (selling stock back to the corporation) is treated as a sale or exchange of an asset eligible for long-term capital gain treatment. With stepup in basis there will be no gain or loss on the redemption — this essentially means that no federal income tax will be due on the redemption. At least 35 percent of the decedent's estate must consist of the stock of the corporation. The benefits of this provision are limited in amount to estate taxes and expenses (funeral and administrative) incurred by the estate.

Impact

Most of the benefits of this provision accrue to estates with small business interests that are subject to estate and inheritance taxes. For 2009, the estate tax exemption was \$3.5 million. The estate tax was repealed in 2010 and then was to revert back to the pre-2001 exemption of \$1 million.

The exemption was increased to \$5 million by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312); The exemption is schedule to revert back to the pre-2001 level after 2012. Evidence suggests that only about 3.5 percent of businesses are subject to estate taxes.

Rationale

This provision was added to the tax code by the Revenue Act of 1950. The primary motivation behind it was congressional concern that estate taxes would force some estates to liquidate their holdings in a family business. There was further concern that outsiders could join the business, and the proceeds from any stock sales used to pay taxes would be taxable income under the income tax.

Assessment

The idea of the provision is to keep a family business in the family after the death of a shareholder. There are no special provisions in the tax code, however, for favorable tax treatment of other needy redemptions, such as to pay for medical expenses. To take advantage of this provision the decedent's estate does not need to show that the estate lacks sufficient liquid assets to pay taxes and expenses. Furthermore, the proceeds of the redemption do not have to be used to pay taxes or expenses.

Selected Bibliography

Abrams, Howard E. and Richard L. Doernberg. Federal Corporate Taxation, 6th Edition. New York: Foundation Press, 2008.

INVENTORY ACCOUNTING: LIFO, LCM, AND SPECIFIC IDENTIFICATION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.5	3.8	4.3
2012	0.6	4.0	4.6
2013	0.6	4.2	4.8
2014	0.7	4.4	5.1
2015	0.7	4.6	5.3

Authorization

Sections 475, 491-492.

Description

A taxpayer who sells goods must generally maintain inventory records to determine the cost of goods sold. Individuals can account for inventory on an item by item basis, but may also use conventions, which include FIFO (first-in, first-out, assuming the most recent good sold is the earliest one purchased) and LIFO (last-in, first-out, assuming the most recent good sold is the last one purchased). LIFO can only be used if it is also used for financial reporting, although it is not available to securities dealers. In connection with FIFO, a taxpayer may choose the LCM method, or lower of cost or market. This method allows the taxpayer a tax deduction for losses on goods whose value have fallen below cost while in inventory.

The provisions included in the tax expenditure are the allowance of LIFO, which accounts for over 80 percent of the revenue cost for 2008-2012, the LCM method, which accounts for the remainder, and the specific identification method for homogeneous commodities, which has a negligible effect.

The tax expenditure is based on the notion that basic FIFO is the appropriate method of accounting for costs (unless heterogeneous goods are specifically identified). This view is consistent with the expectation that firms would sell their oldest items first. It is also based on the notion that costs should be allowed only when goods are sold. LIFO allows the appreciation in value to be excluded from income when prices are rising. LCM allows recognition of losses when inventory declines in value (but there is no recognition of gain for rise in value). Allowing specific identification permits firms to select higher cost items and minimize taxable income.

Impact

These three methods of inventory accounting allow taxpayers to reduce the tax burden on the difference between the sales price and cost of inventories. Thus, it encourages taxpayers to carry more inventories than would otherwise be the case, although the magnitude of this effect is unclear. Use of LIFO for accounting purposes also results in a valuation of the existing stock of inventory that is smaller than market value, while use of FIFO leads to a valuation more consistent with market value.

According to Plesko (2006) the use of LIFO increased in the 1970s (a period of high inflation) and peaked in the early 1980s when 70 percent of large firms used LIFO for some part of their inventory. That figure declined to 40 percent by 2004. LIFO was most heavily used by the chemicals, furniture, general merchandisers, and metal industries. Most firms are small, however, and most firms use FIFO. Neubig and Dauchy (2007) found that over 90 percent of the increased corporate sector tax from the repeal of LIFO and LCM would come from manufacturing and over half would fall on petroleum and coal products. (These projections depend, however, on forecasts of prices.) Knittel (2009) found that 10 percent of firms used LIFO to value some portion of their inventories in 2006 and LIFO inventories accounted for 31 percent of inventories. The method was most prevalent in the petroleum industry and in motor vehicle, food and beverage, and general merchandise retailers.

LIFO allows tax-planning opportunities to firms that do not exist with FIFO. For example, for firms expecting a high tax liability, purchasing inventory at year end under LIFO can increase costs and reduce taxable income, while firms expecting losses can reduce taxable income by shrinking inventory.

Rationale

As early as 1918, the Treasury Department regulations allowed FIFO and LCM, which were used in financial accounts. LCM was considered a conservative accounting practice which reflected the loss in value of inventories. LIFO, however, was not allowed. The Revenue Act of 1938 allowed LIFO for a small number of narrowly defined industries, and the scope was liberalized by the Revenue Act of 1939. The reason for adopting it was to allow a standard accounting practice. A financial conformity requirement was imposed. Since this period was not one with rising prices, the effects on revenue were minimal. Treasury regulations restricted the application to industries where commodities could be measured in specific units (e.g., barrels), and thus use was limited. In 1942 a dollar value method that could be applied to pools of inventory was introduced for limited cases, and a court case (Hutzler Brothers, 8th Tax Court 14) in 1947 and 1949 Treasury regulations (T.D. 5756, 1949-2 C.B. 21) extended it to all taxpayers.

The Economic Recovery Tax Act of 1981 simplified LIFO by allowing a simplified dollar value method that could be applied to all inventory by small businesses and allowed the use of external indexes. The reason was to make the method that most effectively mitigates the effects of inflation more accessible to all businesses.

The Senate Finance Committee proposed to eliminate the LCM method in 2004 and the Clinton Administration proposed the elimination of LCM and the subnormal goods methods (which allows a write down of defective goods) in a number of budgets. Repeal of both LIFO and LCM were included in Chairman Rangel's tax reform proposal, H.R. 3970, 110th Congress and in President Obama's FY2010 and FY2011 budget proposals.

Assessment

The principal argument currently made for LIFO is that it more closely conforms to true economic income by deferring, and for firms that operate indefinitely, effectively excluding, income that arises from inflation. There are two criticisms of this argument. The first is that the method also allows the deferral and exclusion of real gains. For example, when oil prices increased during the first half of 2008, firms using LIFO that had gains from oil in inventory would not recognize these gains. The second is that other parts of the tax code are not indexed. In particular, firms are allowed to deduct the inflation portion of the interest rate. As a result, debt financed

investments in LIFO inventory are subject to a negative tax. Another criticism of LIFO is that it facilitates tax planning to minimize tax liability over time.

It is more difficult to find an argument for using LCM for tax purposes (although it may be desirable for financial purposes). For small firms, using the same inventory system for financial purposes as for tax purposes may simplify tax compliance.

The International Financial Reporting Standards (IFRS) accounting method that is used by most other countries and is being considered for adoption in the United States does not permit LIFO accounting; if this system is adopted, and no other changes are made, LIFO would not be available because of the financial conformity requirement. The LIFO issue may, however, present a barrier to adoption.

There is little discussion about the specific identification for homogeneous products, but the revenue associated with that effect is very small

Selected Bibliography

Abell, Chester. "International Financial Reporting Standards: Tax Must be Involved," *Tax Notes*, September 15, 2008, pp.1057-1058.

Bloom Robert, and William J. Cenker. "The Death of LIFO?" *Journal of Accountancy*, Vol. 27, January 2009, pp. 44-49.

Frankel, Micah and Robert Trezevant, "The Year-End LIFO Inventory Purchasing Decision: An Empirical Test," *The Accounting Review*, Vol. 69, April 1994, pp. 382-398.

Hughes, Peggy Ann, Nancy Stempin, and Matthew D. Mandelbaum, "The Elimination of LIFO: A Requirement for the Adoption of IFRS in the United States," *Review of Business Research*, Vol. 9, No. 4, 2009, pp.148-155

Jaworski, Thomas. "Will LIFO Repeal Revenue Be Worth Corporate Resistance?" *Tax Notes*, April 19, 2010, pp. 253-257.

Johnson, W. Bruce, and Dan S. Dhaliwal, "LIFO Abandonment," *Journal of Accounting Research*, Vol. 26, Autumn 1988, pp., 236-272.

Kleinbard, Edward D., George A. Plesko, and Corey M. Goodman, "Is it Time to Liquidate LIFO?" *Tax Notes*, October 16, 2006, pp. 237-253.

Knittel, Matthew. "How Prevalent is LIFO? Evidence From Tax Data." *Tax Notes*, March 30, 2009, pp. 1587-1589.

Lessard, Stephen. "Giving Life to LIFO: Adoption of the LIFO Method of Inventory Valuation," *Tax Lawyer*, Vol. 60, Spring 2007, pp. 781-806.

Mock, Rodney P. and Andreas Simon. "The LIFO, IFRS Conversion: An Explosive Concoction," *Tax Notes*, May 11, 2009, pp. 741-746

Mosebach, Janet E. and Michael Mosebach. "Does Repealing LIFO Really Matter?" *Tax Notes*, May 25, 2010, pp. 901-906

Neubig, Tom and Estelle Dauchy, "Rangel's Business Tax reforms: Industry Effects by Sector," *Tax Notes*, November 26, 2007, pp.873-878.

Plesko, George, Testimony before the Committee on Finance, United States Senate, June 13, 2006.

- U.S. Congress, Joint Committee on Taxation. Description of Revenue Provisions Contained in the President's Fiscal Year 2001 Budget Proposal, JCS-2-00, Washington, DC: March 6, 2000.
- U.S. Congress, Joint Committee on Taxation. General Explanation of the Economic Recovery Tax Act of 1981, JCS-71-8, Washington, DC, December 29, 1981.
- U.S. Congress, Senate, Hearings before the Committee on Finance, Revenue Act of 1938, Washington, DC: U.S. Government Printing Office, 1938.

White, George. "LIFO and IFRS: How Closely Linked?" Tax Notes, July 13, 2009, pp. 175-177.

EXCLUSION OF GAIN OR LOSS ON SALE OR EXCHANGE OF CERTAIN ENVIRONMENTALLY CONTAMINATED AREAS ("BROWNFIELDS") FROM THE UNRELATED BUSINESS INCOME TAX

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	(1)	(¹)
2012	-	(¹)	(¹)
2013	-	(¹)	(¹)
2014	-	(¹)	(¹)
2015	-	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 512, 514.

Description

Tax exempt organizations are subject to tax under the unrelated business income tax (UBIT) for activities that are not part of their tax exempt purpose. Gains on the sale of property are not generally taxed unless the property is inventory or stock in trade. Gains from the sale of assets that were debt-financed in part are, however, subject to the UBIT in proportion to the debt. Qualifying brownfield property that is acquired from an unrelated party, subject to remediation, and sold to another unrelated party is exempt from this tax. This provision applies to sales before January 1, 2011.

A qualified contaminated site, or "brownfield," is generally defined as any property that 1) is held for use in a trade or business, and 2) on which there has been an actual or threatened release or disposal of certain hazardous substances as certified by the appropriate state environmental agency. Superfund sites — sites that are on the national priorities list under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 — do not qualify as brownfields.

Impact

The exclusion from the tax reduces the cost of remediating and reselling brownfields by tax exempt organizations using debt finance. Most tax exempt organizations are taxed as corporations, and thus the saving would typically be 35 percent of the gain in value (at least for large organizations). When the gain in value is large relative to the acquisition cost, the cost is reduced by close to 35percent due to the tax exemption. Thus, this provision substantially reduces the cost of remediating environmentally damaged property.

The provision targets areas in distressed urban and rural communities that can attract the capital and enterprises needed to rebuild and redevelop polluted sites. According to the Environmental Protection Agency, there are thousands of such sites (30,000 by some estimates) in the United States.

Rationale

This provision was added by the American Jobs Creation Act of 2004 (P.L. 108-357). In 2003, when Senator Baucus, ranking member of the Senate Finance Committee, introduced this provision as a separate bill, he indicated that the UBIT had unintentionally interfered with the use of a tax exempt entity's ability to invest and redevelop environmentally contaminated real estate because of the possibility of becoming subject to the UBIT.

Assessment

The purpose of the UBIT is to prevent tax exempt entities from competing unfairly with taxable firms. Since taxable firms are allowed expensing of their investments in brownfields remediation (see entry on Expensing of Redevelopment Costs in Certain Environmentally Contaminated Areas ("Brownfields")), their effective tax rate is lowered substantially, particularly in the case where the remediation costs are large relative to the cost of the acquisition of the property. Thus, to some extent, restoring tax exemption may lead to a more level playing field.

As noted in the entry on expensing of remediation costs, the effectiveness of that tax subsidy has been questioned, because many view the

main disincentive to development of brownfield sites not the costs but rather the potential liability under current environmental regulation. That is to say, the main barrier to development appears to be regulatory rather than financial. And as noted in that entry, barring such regulatory disincentives, the market system ordinarily creates its own incentives to develop depressed areas, as part of the normal economic cycle of growth, decay, and redevelopment. As an environmental policy, this type of capital subsidy is also questionable on efficiency grounds. Many economists believe that expensing is a costly and inefficient way to achieve environmental goals, and that the external costs resulting from environmental pollution are more efficiently addressed by either pollution or waste taxes or tradeable permits.

Selected Bibliography

Carroll, Deborah A., and Robert J. Eger III. "Brownfields, Crime, and Tax Increment Financing." *American Review of Public Administration*. December 1, 2006. v. 36, pp. 455-477.

Environmental Law Advocates. "New Legislative Agency Initiatives to Promote Brownfield Redevelopment," December, 2003, http://www.goodwinprocter.com/~/media/862C84719E04481B837EE7110762B3E3.ashx.

Greenberg, Michael R., and Justin Hollander. "The Environmental Protection Agency's Brownfields Pilot Program." *American Journal of Public Health*, February 2006, v. 96, pp. 277-282.

Longo, Alberto, and Anna Alberini. "What Are the Effects of Contamination Risks on Commercial and Industrial Properties? Evidence from Baltimore, Maryland," *Journal of Environmental Planning and Management*. September 2006, v.49, pp. 713-751.

Northeast-Midwest Institute, National Association of Local Government Environmental Professionals. *Unlocking Brownfields: Keys to Community Revitalization*, October 2004.

Paull, Evans. "The Environmental and Economic Implications of Brownsfields Redevelopment," Northeast Midwest Institute, July 2008: [http://www.nemw.org/EnvironEconImpactsBFRedev.pdf].

Reisch, Mark. Superfund and the Brownfields Issue. Library of Congress, Congressional Research Service Report 97-731 ENR, Washington, DC, 2001.

— . Brownfield Issues in the 110th Congress. U.S. Library of Congress. Congressional Research Service. Report RS22575, 2008.

Sterner, Thomas. Policy Instruments for Environmental and Natural Resource Management. Resources for the Future, Washington, 2003.

U.S. Congress, Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in the 108th Congress, Washington, DC, U.S. Government Printing Office, May 2005, pp. 319-326.

EXCLUSION OF INTEREST ON STATE AND LOCAL QUALIFIED GREEN BUILDING AND SUSTAINABLE DESIGN PROJECT BONDS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	(1)	(¹)
	(1)	(1)	(1)
2012	()	()	()
2013	(,)	()	(;)
2014	$\binom{1}{2}$	(¹)	(¹)
2015	(1)	(1)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 103, 142(l), and 146(g).

Description

Interest income on state and local bonds used to finance the construction of "green building and sustainable design projects," as designated by the U.S. Environmental Protection Agency (EPA), is tax exempt. Green buildings are evaluated based on these criteria: (1) site sustainability; (2) water efficiency; (3) energy use and atmosphere; (4) material and resource use; (5) indoor environmental quality; and (6) innovative design. The program is designed as a "demonstration" program, and requires that at least one designated project shall be located in or within a 10-mile radius of an empowerment zone and at least one shall be located in a rural state. These bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds,

see the entry under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Bonds issued for green building and sustainable design projects are not, however, subject to the state volume cap on private activity bonds. This exclusion arguably reflects a belief that the bonds have a larger component of benefit to the general public than do many of the other private activities eligible for tax exemption. The bonds are subject to an aggregate face amount of \$2 billion and must have been issued before October 1, 2012.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to finance green building projects at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of both the factors that determine the shares of benefits going to bondholders and users of the green buildings and associated projects, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Proponents of green bonds argue that the federal subsidy is necessary because private investors are unwilling to accept the risk and relatively low return associated with green building projects. Proponents argue that the market has failed to produce green buildings because the benefits of these projects extend well beyond the actual building to the surrounding community and to the environment more generally. The owner of the green building is not compensated for these external benefits, and it is unlikely, proponents argue, that a private investor would agree to provide them without some type of government subsidy.

Assessment

The legislation (P.L. 108-357) that created these bonds was enacted on October 22, 2004, and the success of the program is still uncertain. Before the legislation was enacted, some developers reportedly were voluntarily adhering to green building standards to attract tenants. If so, the market failure described earlier to justify the use of federal subsidy may be less

compelling. In addition, as one of many categories of tax-exempt private-activity bonds, green bonds will likely increase the financing costs of bonds issued for other public capital stock and increase the supply of assets available to individuals and corporations to shelter their income from taxation. The authority to issue green bonds was extended through October 1, 2012 by P.L. 110-343, the Energy Improvement and Extension Act of 2008. The program was to expire October 1, 2009.

Selected Bibliography

Boise State University, Office of Sustainability and the Public Policy Center, "Green Building in the Pacific Northwest: Next Steps for an Emerging Trend," February 2010.

Ho, Cathy Lang. "Eco-fraud: 'Green Buildings' Might Not be all They're Made Out to Be." *Architecture*, v. 92, July 2003, pp. 31-32.

International City-County Management Association. "Green Buildings." *Public Management*, v. 82, May 2000, p. 36.

Johansson, Ola. "The Spatial Diffusion of Green Building Technologies: The Case of Leadership in Energy and Environmental Design (LEED) in the United States," *International Journal of Technology Management & Sustainable Development*, December 2011, Vol. 10 Issue 3, p251-266.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457. Washington, D.C., Sept. 10, 2010.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638. Washington, D.C., June 19, 2012.

Temple, Judy. "Limitations on State and Local Government Borrowing for Private Purposes." *National Tax Journal*, v. 46, March 1993, pp. 41-53.

Weisbrod, Burton A. *The Nonprofit Economy*. Cambridge, Mass.: Harvard University Press, 1988.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activities.* Washington, DC: The Urban Institute Press, 1991.

NET ALTERNATIVE MINIMUM TAX ATTRIBUTABLE TO NET OPERATING LOSS DEDUCTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-0.1	-0.5	-0.6
2012	-0.1	-0.5	-0.6
2013	-0.1	-0.5	-0.6
2014	-0.1	-0.5	-0.6
2015	-0.1	-0.5	-0.6

Authorization

Section 172

Description

The provision allows eligible taxpayers to elect to carry back an applicable net operating loss (NOL) for a period of 3, 4, or 5 years, or a loss from operations for 4 or 5 years, to offset taxable income in those preceding taxable years. Eligible taxpayers are all taxpayers except for those who receive federal assistance from the Troubled Asset Relief Program. If the taxpayer makes this election, an alternative minimum tax net operating loss from the election year can be carried back without being subject to limit. Otherwise, alternative minimum tax net operating losses are limited to offset no more than 90 percent of the alternative minimum taxable income (AMTI) for the carryback year.

Impact

The provision allows eligible taxpayers subject to the 90 percent limit to further offset their alternative minimum taxable income using losses incurred in 2008 or 2009.

Rationale

Under the Worker, Homeownership, and Business Assistance Act of 2009 (P.L. 111-92) the 90 percent limitation was removed for taxpayers, presumably for some combination of increasing the ability of business to smooth taxes over the business cycle and to help with short-term cash flow during the recession.

Assessment

The carryback and carryforward provisions allow taxpayers the ability to smooth out changes in business income, and therefore taxes, over the business cycle. Increasing the fraction of AMTI that may be offset using an NOL from 90 percent to 100 percent further promotes income smoothing by allowing taxpayers to fully recover current losses now, as opposed to in the future.

Selected Bibliography

Elliot, Amy S. Practitioners Discuss Benefit of Expanded Carryback Election for AMT NOLs. *Tax Notes Today*. May 19, 2010.

Internal Revenue Service. Expanded Carryback of Net Operating Losses and Losses from Operations. Internal Revenue Bulletin: 2010-37. Washington, D.C.. September 13, 2010.

—. Net Operating Losses (NOLs) for Individuals, Estates, and Trusts. IRS Publication 536, Washington, D.C.. April 2, 2010.

Keightley, Mark. Tax Treatment of Net Operating Losses. Library of Congress, Congressional Research Service Report RL34535, Washington, DC, September, 2010.

60-40 RULE FOR GAIN OR LOSS FROM SECTION 1256 CONTRACTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.6	(¹)	0.6
2012	0.8	(1)	0.8
2013	0.9	(¹)	0.9
2014	0.9	(¹)	0.9
2015	0.9	(1)	0.9

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 1256.

Description

A Section 1256 contract is any regulated futures contract, foreign currency contract, nonequity option, dealer equity option, or dealer securities futures contract that is traded on a qualified board of exchange with a mark-to-market accounting system. The Dodd-Frank Wall Street Reform and Consumer Protection Act (P.L. 111-203) clarified that section 1256 does not apply to certain derivatives contracts (e.g., credit default swaps). Under this mark-to-market rule, the gains and losses must be reported on an annual basis, for tax purposes.

The capital gain or loss of applicable contracts is treated as consisting of 40 percent short-term and 60 percent long-term gain or loss. This is true regardless of how long the contract is held. The 60/40 rule does not apply to hedging transactions or limited partnerships. A hedging transaction is a transaction done by a business in its normal operation with the primary purpose of reducing certain risks.

Impact

The application of mark-to-market accounting to Section 1256 contracts eliminates deferral that would result under traditional realization principles and taxes accrued gain, which may mean paying income tax on income that was not received. The 60-40 rule, however, simplifies tax calculations and removes the 1-year holding period requirement for long-term capital gains tax treatment.

Rationale

The Economic Recovery Tax Act of 1981 (P.L. 97-34) established that all regulated futures contracts must be valued on an annual basis using a mark-to-market method, to overcome the tax sheltering impact of certain commodity futures trading strategies and to harmonize the tax treatment of commodities futures contracts with the realities of the marketplace under what Congress referred to as the doctrine of constructive receipt.

The Deficit Reduction Act of 1984 (P.L. 98-369) and the Tax Reform Act of 1986 (P.L. 99-514) extended the mark-to-market rule to non-equity listed options and dealers' equity options, and increased the information required for banks qualify for the exemption for hedging. Rules were provided to prevent limited partners (or entrepreneurs) of an options dealer from recognizing gain or loss from equity options as 60 percent long-term capital gain or loss and 40 percent short-term capital gain or loss. These changes have been motivated by Congress's wanting consistent tax treatment for economically similar contracts — or horizontal equity concerns, at least when pricing was readily available.

Assessment

The taxation of accrued gains moves the tax system toward taxing economic income (i.e., the Haig-Simons definition of income — consumption plus additions to wealth). It eliminates the benefits of taxing realized gains — taxes cannot be deferred until the taxpayer decides to realize the gains by selling the asset. But, by taxing 60 percent of the accrued gains at the lower long-term capital gains rate, assets held for less than 1 year receive favorable tax treatment, which often results in lower taxes for traders.

Selected Bibliography

Feder, Michael J., L.G. "Chip" Harter, and David H. Shapiro. "Notice 2003-81: Are OTC Currency Options Section 1256 Contracts?," *Tax Notes*, Dec. 23, 2003, pp.1470-1472.

Keinan, Yoram. "Book Tax Conformity for Financial Instruments," Florida Tax Review. vol. 6 no. 7, (2004), pp. 678-756.

Miller, David S. "A Progressive System of Mark-to-Market Taxation," *Tax Notes*, Oct. 13, 2008, pp. 213-218.

Scarborough, Robert H. "Different Rules for Different Players and Products: The Patchwork Taxation of Derivatives," *Taxes*, December 1994, pp. 1031-1049.

Testimony of William M. Paul in U.S. Congress, House Committee on Ways and Means, *Hearing on the Tax Treatment of Derivatives*, 110th Cong., 2nd sess., March 5, 2008.

- U.S. Congress, Joint Committee on Taxation, *Technical Explanation of the Tax Provisions of H.R. 4541, the "Commodities Futures Modernization Act of 2000,"* (Washington, DC: GPO, 2000), pp. 2-9.
- U.S. Department of the Treasury, Internal Revenue Service. *Investment Income and Expenses*, Publication 550, 2007, pp. 39-41.

Zelnick, John, and Dale Collinson. "IRS Clears Uncertainty for Over-the-Counter Currency Options," *Tax Notes*, Dec. 17, 2007, pp. 1152-1154.

INCLUSION OF INCOME ARISING FROM BUSINESS INDEBTEDNESS DISCHARGED BY THE REACQUISITION OF A DEBT INSTRUMENT

Estimated Revenue Loss [In billions of dollars]

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	Fiscal year	Individuals	Corporations	Total	
•	2011	0.5	6.9	22.8	
	2012	(1)	0.5	7.4	
	2013	$\binom{1}{2}$	0.3	0.3	
	2014	(¹)	(1)	(1)	
	2015	(1)	(¹)	(¹)	

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 108(i).

Description

The American Recovery and Reinvestment Act of 2009, Public Law 111-5, added to the Internal Revenue Code (IRC) Section 108(i), "Deferral and ratable inclusion of income arising from business indebtedness discharged by the reacquisition of debt instrument." Section 108(i) allowed financially troubled companies to defer their taxable cancellation of indebtedness income in certain circumstances.

In general, gross income includes income that is realized by a debtor from the discharge of indebtedness, subject to certain exceptions. For all taxpayers, the amount of discharge of indebtedness generally is equal to the difference between the adjusted issue price of the debt being cancelled and the amount used to satisfy the debt. These rules generally apply to the exchange of an old obligation for a new obligation, including a modification of indebtedness that is treated as an exchange (debt-for-debt exchange).

Similarly, if a debtor repurchases its debt instrument for an amount that is less than the "adjusted issue price" of such debt instrument, the debtor realizes income equal to the excess of the adjusted issue price over the repurchase price. In addition, indebtedness acquired by a person who bears a relationship to the debtor is treated as if it were acquired by the debtor. Thus, where a debtor's indebtedness is acquired for less than its adjusted issue price by a person related to the debtor, the debtor recognizes income from the cancellation of indebtedness.¹⁰

New Section 108(i) permits a taxpayer to elect to defer income from cancellation of indebtedness recognized by the taxpayer as a result of a repurchase by the taxpayer or a person who bears a relationship to the taxpayer, of a "debt instrument" that was issued by the taxpayer. Section 108(i) applies only to repurchases of debt that occur after December 31, 2008, and prior to January 1, 2011, and are repurchases for cash. A "debt instrument" is broadly defined to include any bond, debenture, note, certificate or any other instrument or contractual arrangement constituting indebtedness. A taxpayer electing to defer cancellation of debt from income under the proposal is required to include in income an amount equal to 25% of the deferred amount in each of the four taxable years beginning in the year following the year of the repurchase. Section 108(i) is effective for repurchases after December 31, 2008.

Impact

A taxpayer who chooses to defer the recognition of income from cancellation of indebtedness provides the taxpayer with the equivalence of an interest free loan. This would strengthen the financial position of companies suffering from the severe economic downturn. Shareholders of corporations and owners of partnerships would directly benefit from Section 108(i). Owners of most corporate stock and most partners in partnerships are in upper middle or high income households. Arguably, assisting financially troubled companies during a severe economic downturn benefitted the economy as a whole and thus assisted all income groups.

¹⁰ U.S. Congress, Joint Committee on Taxation, Description of the American Recovery and Reinvestment Tax Act of 2009, JCX-10-09, January 27, 2009, pp. 55-56.

Ibid., p. 56.

Rationale

The American Recovery and Reinvestment Act of 2009 was passed during the most severe economic downturn since the Great Depression. The first two stated purposes of this act were "to preserve and create jobs and promote economic recovery" and "to assist those most impacted by the recession." Thus, assisting financially troubled companies to defer their taxable cancellation of indebtedness income is consistent with the purposes of the act.

Assessment

The Internal Revenue Service issued deferral rules for section 108(i) to facilitate debt workouts and to alleviate taxpayer liquidity concerns by deferring the tax liability associated with the discharge of indebtedness income. These rules were restrictive in order to target this tax preference to the appropriate companies. It is too early to determine whether or not this tax preference is cost effective.

Selected Bibliography

Barnett, Robert. "Deferring COD Income: Burden May Outweigh Benefit," *Journal of Accountancy*, November, 2010.

Bennett, Allison. "IRS Unveils Major Guidance on Acceleration of COD Income in Section 108(i) Structures," *Daily Tax Report*, August 12, 2010, pp. GG1-GG3.

- U.S. Congress. Joint Committee on Taxation. *Description of the American Recovery and Reinvestment Tax Act of 2009*, JCX-10-09, January 27, 2009, pp. 55-56.
- U.S. Treasury, Internal Revenue Service, IRS Temporary Regulations (T.D. 9498) on Application of Tax Code Section 108(i) to Partnerships and S Corporations, August 13, 2010.
- U.S. Treasury, Internal Revenue Service. IRS Temporary Regulations (T.D. 9497) on Deferred Discharge of Indebtedness of Corporations, Deferred OID Deductions, August 13, 2010.

Transportation

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR HIGHWAY PROJECTS AND RAIL-TRUCK TRANSFER FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	(¹)	0.1
2012	0.1	(¹)	0.1
2013	0.1	(¹)	0.1
2014	0.1	(¹)	0.1
2015	0.1	0.1	0.2

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 103, 141, 142(m), and 146.

Description

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, P.L. 109-59, enacted on August 10, 2005, created a new class of tax-exempt, qualified private activity bonds for the financing of qualified highway or surface freight transfer facilities. Qualified facilities include: (1) any surface transportation project which receives federal assistance under title 23; (2) any project for an international bridge or tunnel for which an international entity authorized under federal or state law is responsible and which receives federal assistance under title 23; and (3) any facility for the transfer of freight from truck to rail or rail to truck (including any temporary storage facilities directly related to such transfers) which receives federal assistance under title 23 or title 49. The bonds used to finance these facilities are classified as private-activity bonds rather than governmental bonds because a substantial portion of the benefits generated

by the project(s) accrue to individuals or business rather than to the government. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Bonds issued for qualified highway or surface freight transfer facilities are not subject to the federally imposed annual state volume cap on private-activity bonds. The bonds are capped, however, by a national limitation of \$15 billion to be allocated at the discretion of Secretary of Transportation.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low-interest rates allow issuers to construct highway or surface freight transfer facilities at lower cost. Some of the benefits of the tax exemption and federal subsidy also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the highway or surface freight transfer facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

Before 1968, state and local governments were allowed to act as conduits for the issuance of tax-exempt bonds to finance privately owned and operated facilities. The Revenue and Expenditure Control Act of 1968 (RECA 1968), however, imposed tests that restricted the issuance of these bonds. The Act provided a specific exception which allowed issuance for specific projects such as non-government-owned docks and wharves. Intermodal facilities are similar in function to docks and wharves, yet were not included in the original list of qualified facilities. The addition of truck-to-rail and rail-to-truck intermodal projects to the list of qualified private activities in 2005 is intended to enhance the efficiency of the nation's long distance freight transport infrastructure. With more efficient intermodal facilities, proponents suggest that long distance truck traffic will shift from government financed interstate highways to privately owned long distance rail transport.

Assessment

Generally, there are two reasons cited for federal subsidy of these facilities. First, state and local governments tend to view these projects as potential economic development tools. Second, the federal subsidy may correct a potential market failure. The value of the projects in encouraging new economic development depends on the economic conditions in each location. In some cases, the project may encourage new development, whereas in others the public (or even private) investment would have occurred even without the federal subsidy. The latter observation reduces the target efficiency of the project.

The value of allowing these bonds to be eligible for tax-exempt status hinges on whether only the users of such facilities should pay the full cost, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Economic theory suggests that to the extent these facilities provide social benefits that extend beyond the boundaries of the state or local government. The facilities might be underprovided because state and local taxpayers may be unwilling to finance benefits for nonresidents.

According to the Federal Highway Administration, as of September 21, 2012, \$3.1 billion of bonds have been issued under this provision. Another \$4.3 billion as been allocated, but bonds have yet to be issued. Thus, just under half of the \$15 billion allocation has been subscribed since its inception.

Even if a case can be made for a federal subsidy arising from underinvesting at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for transfer facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to lure investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation, "Subsidizing Infrastructure Investment with Tax-Preferred Bonds," Pub. No. 4005, October 2009.

Maguire, Steven. Private Activity Bonds: An Introduction. Library of Congress, Congressional Research Service Report RL31457, Spt. 10, 2010.

- . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638, June 19, 2012.
- U.S. Department of Transportation, Federal Highway Administration, *Tools and Programs: federal Debt Financing Tools: Private Activity Bonds*. The data and report are available online at: http://www.fhwa.dot.gov/ipd/finance/index.htm.
- U.S. Government Accountability Office, Highway Infrastructure: Federal-State Partnership Produces Benefits and Poses Oversight Risks, GAO Report 12-474, April 2012.

Zimmerman, Dennis. The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity. Washington, DC: The Urban Institute Press, 1991.

Transportation

TAX CREDIT FOR CERTAIN RAILROAD TRACK MAINTENANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.2	0.2
2012	-	0.1	0.1
2013	-	(¹)	(¹)
2014	-	(¹)	(¹)
2015	-	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Note: This provision expired in 2011 but may be reinstated. This provision was not included in the January 2012 JCT list. Revenue loss is based on revenue estimates for P.L. 111-312 that extended the credit through 2011.

Authorization

Section 45G.

Description

Qualified railroad track maintenance expenditures paid or incurred in a taxable year by eligible taxpayers are eligible for a 50 percent business tax credit. The credit is limited to \$3,500 times the number of miles of railroad track owned or leased by an eligible taxpayer. Railroad track maintenance expenditures are amounts, which may be either repairs or capitalized costs, spent to maintain railroad track (including roadbed, bridges, and related track structures) owned or leased as of January 1, 2005, by a Class II or Class III railroad. Eligible taxpayers are smaller (Class II or Class III) railroads and any person who transports property using these rail facilities or furnishes property or services to such a person.

The taxpayer's basis in railroad track is reduced by the amount of the credit allowed (so that any deduction of cost or depreciation is only on the

cost net of the credit). The credit cannot be carried back to years before 2005. The credit expires at the end of 2011 and can be taken against the alternative minimum tax.

The amount eligible is the gross expenditures not taking into account reductions such as discounts or loan forgiveness.

Impact

This provision substantially lowers the cost of track maintenance for the qualifying short line (regional) railroads, with tax credits covering half the costs for those firms and individuals with sufficient tax liability. According to the Federal Railroad Administration, as of the last survey in 1993, these railroads accounted for 25 percent of the nation's rail miles. These regional railroads are particularly important in providing transportation of agricultural products.

Rationale

This provision was enacted as part of the American Jobs Creation Act of 2004 (P.L. 108-357), effective through 2007. While no official rationale was provided in the bill, sponsors of earlier free-standing legislation and industry advocates indicated that the purpose was to encourage the rehabilitation, rather than the abandonment, of short line railroads, which were spun off in the deregulation of railroads in the early 1980s. Advocates also indicated that this service is threatened by heavier 286,000-pound cars that must travel on these lines because of inter-connectivity. They also suggested that preserving these local lines will reduce local truck traffic. There is also some indication that a tax credit was thought to be more likely to be achieved than grants.

The provision relating to discounts was added by the Tax Relief and Health Care Act (P.L. 109-432) enacted December 2006. The provision was extended through 2009, and the credit was allowed against the alternative minimum tax by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008. The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) extended the credit through 2011.

Assessment

The arguments stated by industry advocates and sponsors of the legislation are also echoed in assessments by the Federal Railroad

Administration (FRA), which indicated the need for rehabilitation and improvement, especially to deal with heavier cars. The FRA also suggested that these firms have particular difficulty with access to bank loans.

In general, special subsidies to industries and activities tend to lead to inefficient investment allocation since in a competitive economy businesses should earn enough to maintain their capital. Nevertheless it may be judged or considered desirable to subsidize rail transportation in order to reduce the congestion and pollution of highway traffic. At the same time, a tax credit may be less suited to remedy the problem than a direct grant since firms without sufficient tax liability cannot use the credit.

Selected Bibliography

American Short Line and Regional Railroad Association. Short Line Tax Credit Extensions, 2010: http://www.aslrra.org/legislative___regulatory/Short Line Tax Credit Extension/index.cfm.

Prater, Marvin, *The Long Term Viability of Short Line and Regional Railroads*. U.S. Department of Agriculture, Agricultural Marketing Services, Washington, DC, July 1998.

Shreve, Meg. "I Hear the Train A-Comin': The Railroad Maintenance Track Credit," *Tax Notes*, Vol.119, April 7, 2008, pp. 11-13.

U.S. Congress, House, Conference Report on the American Jobs Creation Act, Report 108-77, Washington, DC: U.S. Government Printing Office, 2004.

Transportation

DEFERRAL OF TAX ON CAPITAL CONSTRUCTION FUNDS OF SHIPPING COMPANIES

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.1	0.1
2012	-	0.1	0.1
2013	-	0.1	0.1
2014	-	0.1	0.1
2015	-	0.1	0.1

Authorization

Section 7518.

Description

U.S. operators of vessels in foreign, Great Lakes, or noncontiguous domestic trade, or in U.S. fisheries, may establish a capital construction fund (CCF) into which they may make certain deposits. Such deposits are deductible from taxable income, and income tax on the earnings of the deposits in the CCF is deferred.

When tax-deferred deposits and their earnings are withdrawn from a CCF, no tax is paid if the withdrawal is used for qualifying purposes, such as to construct, acquire, lease, or pay off the indebtedness on a qualifying vessel. A qualifying vessel must be constructed or reconstructed in the United States, and any lease period must be at least five years.

The tax basis of the vessel (usually its cost to the owner), with respect to which the operator's depreciation deductions are computed, is reduced by the amount of such withdrawal. Thus, over the life of the vessel tax depreciation will be reduced, and taxable income will be increased by the amount of such withdrawal, thereby reversing the effect of the deposit.

However, since gain on the sale of the vessel and income from the operation of the replacement vessel may be deposited into the CCF, the tax deferral may be extended.

Withdrawals for other purposes are taxed at the top tax rate. This rule prevents firms from withdrawing funds in loss years and escaping tax entirely. Funds cannot be left in the account for more than 25 years.

Impact

The allowance of tax deductions for deposits can, if funds are continually rolled over, amount to a complete forgiveness of tax. Even when funds are eventually withdrawn and taxed, there is a substantial deferral of tax that leads to a very low effective tax burden. The provision makes investment in U.S.-constructed ships and registry under the U.S. flag more attractive than it would otherwise be. Despite these benefits, however, there is very little (in some years, no) U.S. participation in the worldwide market supplying large commercial vessels.

The incentive for construction is perhaps less than it would otherwise be, because firms engaged in international shipping have the benefits of deferral of tax through other provisions of the tax law, regardless of where the ship is constructed. This provision is likely to benefit higher-income individuals who are the primary owners of capital (see Introduction for a discussion).

Rationale

The special tax treatment originated to ensure an adequate supply of shipping in the event of war. Although tax subsidies of various types have been in existence since 1936, the coverage of the subsidies was expanded substantially by the Merchant Marine Act of 1970.

Before the Tax Reform Act of 1976 it was unclear whether any investment tax credit was available for eligible vessels financed in whole or in part out of funds withdrawn from a CCF. The 1976 Act specifically provided (as part of the Internal Revenue Code) that a minimum investment credit equal to 50 percent of an amount withdrawn to purchase, construct, or reconstruct qualified vessels was available in 1976 and subsequent years.

The Tax Reform Act of 1986 incorporated the deferral provisions directly into the Internal Revenue Code. It also extended benefits to leasing,

provided for the minimum 25-year period in the fund, and required payment of the tax at the top rate.

Assessment

The failure to tax income from the services of shipping normally misallocates resources into less efficient uses, although it appears that the effects on U.S. large commercial shipbuilding are relatively small.

There are two possible arguments that could be advanced for maintaining this tax benefit. The first is the national defense argument — that it is important to maintain a shipping and shipbuilding capability in time of war.

This justification may be in doubt today, since U.S. firms control many vessels registered under a foreign flag and many U.S. allies control a substantial shipping fleet and have substantial ship-building capability that might be available to the U.S.

There is also an argument that subsidizing domestic ship-building and flagging offsets some other subsidies — both shipbuilding subsidies that are granted by other countries, and the deferral provisions of the U.S. tax code that encourage foreign flagging of U.S.-owned vessels. Economic theory suggests, however, that efficiency is not necessarily enhanced by introducing further distortions to counteract existing ones.

Selected Bibliography

Jantscher, Gerald R. Chapter VI — "Tax Subsidies to the Maritime Industries," *Bread Upon The Waters: Federal Aids to the Maritime Industries*. Washington, DC: The Brookings Institution, 1975.

Madigan, Richard E. *Taxation of the Shipping Industry*. Centreville, MD: Cornell Maritime Press, 1982.

Maritime Administration. Capital Construction Fund. September 2010.

Internal Revenue Service. Capital Construction Fund for Commercial Fishermen, Publication 595, irs.gov.

- U.S. Congress, Joint Committee on Taxation. *General Explanation of the Tax Reform Act of 1986*, Committee Print, 99th Congress, 2nd session. May 4, 1987, pp. 174-176.
- U.S. Department of the Treasury. Tax Reform for Fairness, Simplicity, and Economic Growth, Volume 2, General Explanation of the Treasury Department Proposals. November, 1974, pp. 128-129.

U.S. General Services Administration, Catalog of Federal Domestic Assistance, "Capital Construction Fund," Number 20.808, 2012. Available at http://www.cfda.gov.

Transportation

EXCLUSION OF EMPLOYER-PAID AND EMPLOYER-PROVIDED TRANSPORTATION BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	5.0	SAN.	5.0
2012	5.2	-	5.2
2013	5.5	-	5.5
2014	5.7	-	5.7
2015	5.8	-	5.8

Authorization

Section 132(f).

Description

Some transportation benefits employers provide employees are tax exempt within certain limits. Qualified transportation benefits may include transit passes, vanpool transportation, parking, and bicycle purchase and maintenance costs. The value of transit passes or parking costs provided directly by the employer can be excluded from employees' income, subject to a monthly limit. The value of employer-provided parking facilities can be excluded from employee's income, subject to a monthly limit. Transportation provided by employers (as opposed to transportation benefits paid for by employers) is also subject to a qualified tax exclusion. A limit applies to the total of vanpool costs, transit passes, and parking. Bicycle commuting benefits within a given month, however, are not available to those who receive other types of qualified transportation benefits. About 6% of the civilian workforce receives subsidized transportation benefits.

In 2012, the transportation benefit limit is \$125 per month for vanpool transportation and transit passes. The limit had been set at \$100 per month

for 2001 and had been adjusted each year for inflation, with the adjustment being rounded to the nearest \$5. Starting in March 2009, however, following passage of the American Recovery and Reinvestment Tax Act of 2009 (ARRA; P.L. 111-5), the limit was raised to \$230 per month, to match the level of the parking benefit limit then in effect. Those limits are separate, so an employee could receive both a transportation benefit and a parking benefit. The limit was to revert to \$120 a month in 2011, but the higher level was further extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). The parking benefit limit was initially set to \$175 per month in 1998 and has been adjusted for inflation each year. In 2012, the parking benefit limit is \$240 per month. Bicycle commuters may receive up to \$20 per month.

An employee taking the parking facility tax benefit can also receive a vanpool or transit benefit. Thus, an employee could receive up to \$230 in qualified transportation benefits and \$230 in parking benefits, for a total of up to \$460 per month. Employees can use pretax dollars, if their employer allows, to pay for transit passes, vanpool fares and parking. The new bicycle commuting reimbursement that covers biking costs of up to \$20 per month, however, cannot be funded through pre-tax dollars. The biking benefit cannot be combined with either the parking or transit benefit programs.

Employers may provide benefits as a credit on a transit pass or "smartcard" used on some transit systems. Employers may provide these benefits in cash, subject to a compensation reduction arrangement, only if the benefits cannot be provided readily through a transit pass or a voucher. These measures were imposed in part to prevent employees from reselling transportation vouchers for cash. Cash payments or giving cash-equivalent items (e.g., debit cards) by employers to employees is generally treated as taxable income.

Impact

Exclusion from taxation of transportation fringe benefits provides a subsidy to employment in those businesses and industries in which such fringe benefits are common and feasible. The subsidy benefits both employees, through higher compensation, and their employers, who may face lower wage costs. To the extent that this exemption induces employees to use mass transportation and to the extent that mass transportation reduces traffic congestion, this exemption lowers commuting costs to all workers in urban areas.

Higher income individuals are more likely to benefit from the parking exclusion than the mass transit and vanpool subsidies to the extent that the propensity to drive to work is correlated with income. The effective value of the transit benefits rise with the marginal tax rate of a recipient. The value of the benefit also depends on the location of the employer: the provision is targeted towards the taxpayers working in the highly urbanized areas or other places where transit is available or parking space is limited.

Rationale

A statutory exclusion for the value of parking was introduced in 1984, along with exclusions for several other fringe benefits. Some employers had provided one or more of these fringe benefits for many years, and employers, employees, and the Internal Revenue Service had not considered those benefits to be taxable income.

Many employers used fringe benefits during World War II to attract workers because wage and price controls limited their ability to compete for labor. A generation later, Congress sought to limit the use of tax-free fringe benefits such as employer-provided transportation benefits. After the U.S. Treasury proposed and then withdrew regulations regarding the tax treatment of certain fringe benefits, Congress in 1978 imposed a moratorium, which was extended in 1981, on such regulations. In the Deficit Reduction Act of 1984, Congress introduced new rules governing the tax treatment of fringe benefits. At that time, Congress expressed concern that without clear boundaries on the use of these fringe benefits, new approaches could emerge that would further erode the tax base and increase inequities among employees in different businesses and industries.

The Comprehensive Energy Policy Act of 1992 placed a dollar ceiling on the exclusion of parking facilities and introduced the exclusions for mass transit facilities and van pools in order to encourage mass commuting, which would in turn reduce traffic congestion and pollution. In 1998, the Transportation Equity Act for the 21st Century raised the benefit limits and modified their phase-in periods and inflation adjustment rules. Employees at that time could also choose to receive cash instead of transit benefits.

The Emergency Economic Stabilization Act of 2008 (EESA; P.L. 110–343 §211) added a bicycle commuting reimbursement. An employee who regularly bikes to work may receive a tax-free \$20 per month from the employer to cover costs of a bicycle, repair, maintenance, or storage. Such expenses must be documented and paid by the employer, rather than being

funded by a salary reduction arrangement. Employees who benefit from the bicycle commuting reimbursement cannot receive other qualified transportation fringe benefits in the same month. The reimbursement limit (\$20/month) is not adjusted for inflation.

The American Recovery and Reinvestment Tax Act of 2009 (P.L. 111-5) increased the limit on qualified transit benefits, paid for or provided by employers, to match the level of the parking benefit limit, to \$230 per month from March 2009 until January 1, 2011. Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) extended the higher limit for an additional year.

Assessment

The exclusion subsidizes employment in those businesses and industries located where transportation fringe benefits are feasible and commonly used. Businesses and workers located where mass transportation alternatives are lacking gain little benefit from this provision.

Subsidies for mass transit and vanpools encourage use of mass transportation and may reduce congestion and pollution. Some studies have found that transportation benefit programs can spur non-users of public transportation to become occasional users, and occasional users to become more regular users. Motivating commuters in highly urbanized areas to use mass transportation can reduce commuting costs generally. If workers commute in ways that reduce traffic congestion, all commuters in an area may enjoy spillover benefits such as lower transportation costs, shorter waiting times in traffic, and improved air quality.

Subsidies or favorable tax treatment of parking may encourage more employees to drive to work, which may increase traffic congestion and air pollution. One study found that when employees in California firms became able to opt for a cash benefit instead of employer provided parking benefits, the proportion of employees driving to work fell significantly. Subsidized employee parking may also make finding parking spaces harder, which can affect quality of life in residential neighborhoods near work areas and the flow of customers for retail businesses.

Determining fair market values for fringe benefits such as free or reduced price parking may be difficult in some places. Commercial parking lots are common in most highly urbanized areas, however, so that calculating comparable value of parking benefits in those areas is straightforward in principle.

Fringe benefits are part of the total compensation package that employees receive and that employers provide to compete in labor markets. If some fringe benefits, such as transportation benefits, are not considered taxable income, then both employers and firms may wish to reduce taxable wages and salaries in order to increase untaxed fringe benefits. The tax exclusion of such fringe benefits may motivate employees and employers to design compensation packages that increase the consumption of goods and services provided as tax-favored fringe benefits relative to goods and services bought with taxable ordinary income.

Selected Bibliography

Baker, Stuart M., David Judd, and Richard L. Oram. "Tax-Free Transit Benefits at 30: Evolution of a Free Parking Offset," *Journal of Public Transportation* 13(2), 2010.

Gazur, Wayne M. "Assessing Internal Revenue Code Section 132 After Twenty Years," *Virginia Tax Review* 25, 2006, pp. 977-1046.

Hartman, Shane. "Credit Where Credit is Due: Why Congress' Long-Awaited Equalization of the Transit Pass and Qualified-Parking Exclusions, While Laudable, Does Not Go Far Enough," *Seton Hall Legislative Journal* 33, 2008-2009, pp. 565-608.

Hevener, Mary B. "Energy Act Changes to Transportation Benefits, Travel Expenses, and Backup Withholding." *The Tax Executive*, November-December 1992, pp. 463-466.

Kies, Kenneth J. "Analysis of the New Rules Governing the Taxation of Fringe Benefits," *Tax Notes*, vol. 38. September 3, 1984, pp. 981-988.

McKinney, James E. "Certainty Provided as to the Treatment of Most Fringe Benefits by Deficit Reduction Act," *Journal of Taxation 61(3)*, September 1984, pp. 134-137.

Merriman, David. "Subsidized Parking and Neighborhood Nuisances," *Journal of Urban Economics*, vol. 41, no. 2 (March 1997), pp. 198-201.

Shoup, Donald C. "Evaluating the Effects of Cashing Out Employer-paid Parking: Eight Case Studies," *Transport Policy* 4(4), October 1997, pp. 201-216.

Sunley, Emil M., Jr. "Employee Benefits and Transfer Payments," *Comprehensive Income Taxation*, ed. Joseph A. Pechman. Washington, DC: The Brookings Institution, 1977, pp. 90-92.

Turner, Robert W. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy (2nd ed.)*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

U.S. Department of Labor, Bureau of Labor Statistics, National Compensation Survey, Table 40 (Quality of Life benefits), March 2012, available at

http://www.bls.gov/ncs/ebs/benefits/2012/ownership/civilian/table24a.ht m.

- U.S. General Accounting Office. *Mass Transit: Effects of Tax Changes on Commuter Behavior*, RCED-92-243, September 8, 1992, available at [http://archive.gao.gov/d35t11/147754.pdf].
- , Federal Transit Benefits Program: Ineffective Controls Result in Fraud and Abuse by Federal Workers, GAO-07-724T, April 24, 2007, available at [http://www.gao.gov/new.items/d07724t.pdf].
- U.S. Internal Revenue Service. *Employer's Tax Guide to Fringe Benefits For Benefits: For Use in 2012*. Publication 15-B, available at www.irs.gov/publications/p15b/ar02.html.
- —, Rev. Proc. 2009-50, November 9, 2009, available at http://www.irs.gov/irb/2009-45 IRB/ar11.html.
- —, Rev. Proc. 2009-21, April 20, 2009, available at http://www.irs.gov/irb/2009-16 irb/ar13.html.
- —, "Qualified Transportation Fringes," Notice 2008-74, September 22, 2008, available at http://www.irs.gov/irb/2008-38_IRB/ar09.html.
- , Final Regulation (T.D. 8933) on Qualified Transportation Fringe Benefits, January $11,\,2001.$
- U.S. Congress, House. *Comprehensive National Energy Policy Act*, Report 102-474, 102nd Congress, 2d Session, May 5, 1992.
- —, Joint Committee on Taxation. General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984. Committee Print, 98th Congress, 2nd session. December 31, 1984, pp. 838-866.
- , Joint Committee on Taxation. Estimated Budget Effects of the Conference Agreement Relating to the Transportation Revenue and Trust Fund Provisions of H.R. 2400 (Title IX). JCX-43-98. May 22, 1998.
- , Senate Committee on Finance. *Fringe Benefits*, Hearings, 98th Congress, 2nd session. July 26, 27, 30, 1984.

Wilson, Richard W. "Estimating the Travel and Parking Demand Effects of Employer-Paid Parking," *Regional Science and Urban Economics* 22(1), March 1992, pp. 133-145.

Transportation

HIGH-SPEED INTERCITY RAIL VEHICLE SPEED REQUIREMENT FOR EXEMPT HIGH-SPEED RAIL FACILITY BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(¹)
2012	$\binom{1}{2}$	(¹)	$\binom{1}{2}$
2013	(¹)	(¹)	$\binom{1}{2}$
2014	(¹)	(¹)	$\binom{1}{2}$
2015	(¹)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 103, 141, 142(i), and 146.

Description

The Technical and Miscellaneous Revenue Act of 1988, P.L. 100-647, enacted on November 10, 1988, created a new class of tax-exempt, qualified private activity bonds for the financing of high-speed intercity rail projects. Seventy-five percent of the bonds issued for high-speed rail projects are exempt from the federally imposed annual state volume cap on private-activity bonds. This cap is equal to the greater of \$95 per capita or \$284.56 million in 2012.

Before enactment of the American Recovery and Reinvestment Act (ARRA, P.L. 111-5), qualified projects must have used vehicles that were reasonably expected to operate at speeds in excess of 150 miles per hour. This tax expenditure is for the change in the law that occurred with the enactment of the ARRA. Now, under current law, high-speed rail projects will qualify if vehicles are *capable* of traveling at 150 miles per hour.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low-interest rates allow issuers to construct high-speed rail facilities at lower cost. Some of the benefits of the tax exemption and federal subsidy also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the highway or surface freight transfer facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

Before 1968, state and local governments were allowed to act as conduits for the issuance of tax-exempt bonds to finance privately owned and operated facilities. The Revenue and Expenditure Control Act of 1968 (RECA 1968), however, imposed tests that restricted the issuance of these bonds. The Act provided a specific exception which allowed issuance for specific projects such as non-government-owned docks and wharves. High-speed rail projects are similar in function to other public transportation related projects, yet were not included in the original list of qualified projects. The adjustment of the speed requirements for the vehicles using the high-speed rail is intended to enhance the efficiency of the nation's long distance, intercity rail transport infrastructure. With faster and possibly more efficient intercity rail infrastructure, proponents suggest that long distance travel will shift from government financed interstate highways to privately owned high-speed rail transport. This shift, it is argued, would reduce carbon emissions and reduce travel times.

Assessment

The modification of the speed requirement is likely an acknowledgment that the *operational* speed is dependent on some external factors over which the project planners have little control. Or, achieving the operational speed requirement could, in many cases, be cost prohibitive. If a project did not meet the operational speed requirements, the bonds issued for the project would then lose their tax-exempt status. In turn, investors would likely need a significant premium on the bonds to account for the perceived riskiness. The change offered in ARRA, requiring that the vehicles must have the

capacity to travel 150 miles per hour, would seem to provide more certainty for investors.

Ultimately, however, the value of allowing these bonds to be eligible for tax-exempt status hinges on whether only the users of such high-speed rail corridors should pay the full cost, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Economic theory suggests that to the extent these projects provide social benefits that extend beyond the users, high speed-rail might be underprovided because users may be unwilling to finance benefits accruing to nonusers.

Even if a case can be made for a federal subsidy arising from underinvestment, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for high-speed rail projects increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation. "Subsidizing Infrastructure Investment with Tax-Preferred Bonds," pub. no. 4005. October 2009.

Council of Development Finance Agencies. "Original Research: CDFA 2011 National Volume Cap Report," July 2012.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

Whitaker, Stephen. "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity. Washington: The Urban Institute Press, 1991.

Transportation

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR PRIVATE AIRPORTS, DOCKS, AND MASS-COMMUTING FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.6	0.2	0.8
2012	0.6	0.2	0.8
2013	0.7	0.2	0.9
2014	0.7	0.2	0.9
2015	0.8	0.3	1.1

Authorization

Sections 103, 141, 142, and 146.

Description

Interest income on state and local bonds used to finance the construction of publicly accessible airports, docks, wharves, and mass-commuting facilities, such as bus depots and subway stations, is tax exempt. These airport, dock, and wharf bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Because private-activity mass-commuting facility bonds are subject to the private-activity bond annual volume cap, they must compete for cap allocations with bond proposals for all other private activities subject to the volume cap. This cap is equal to the greater of \$95 per capita or \$284.56 million in 2012. The cap has been adjusted for inflation since 2003. Bonds issued for airports, docks, and wharves are not, however, subject to the

annual federally imposed state volume cap on private-activity bonds. The cap is forgone because government ownership requirements restrict the ability of the state or local government to transfer the benefits of the tax exemption to a private operator of the facilities.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low-interest rates enable issuers to provide the services of airport, dock, and wharf facilities at lower cost. Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the airport, dock, and wharf facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

Rationale

Before 1968, state and local governments were allowed to issue taxexempt bonds to finance privately owned airports, docks, and wharves without restriction. The Revenue and Expenditure Control Act of 1968 (RECA 1968) imposed tests that restricted the issuance of bonds for private purposes. However, the Act also provided a specific exception which allowed unrestricted issuance for airports, docks, and wharves, and mass commuting facilities.

The Deficit Reduction Act of 1984 allowed bonds for nongovernmentowned airports, docks, wharves, and mass-commuting facilities to be tax exempt, but required the bonds to be subject to a volume cap applied to several private activities. The volume cap did not apply if the facilities were "governmentally owned."

The Tax Reform Act of 1986 allowed tax exemption only if the facilities satisfied government ownership requirements, but excluded the bonds for airports, wharves, and docks from the private-activity bond volume cap. This Act also denied tax exemption for bonds used to finance related facilities such as hotels, retail facilities in excess of the size necessary to serve passengers and employees, and office facilities for nongovernment employees.

The Economic Recovery Tax Act of 1981 extended tax exemption to mass-commuting vehicles (bus, subway car, rail car, or similar equipment)

that private owners leased to government-owned mass transit systems. This provision allowed both the vehicle owner and the government transit system to benefit from the tax advantages of tax-exempt interest and accelerated depreciation allowances. The vehicle exemption expired on December 31, 1984.

Assessment

State and local governments tend to view these facilities as economic development tools. The desirability of allowing these bonds to be eligible for tax-exempt status hinges on one's view of whether the users of such facilities should pay the full cost, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Economic theory suggests that to the extent these facilities provide social benefits that extend beyond the boundaries of the state or local government, the facilities might be underprovided due to the reluctance of state and local taxpayers to finance benefits for nonresidents.

Even if a case can be made for a federal subsidy due to underinvestment at the state and local level, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, those issued for airports, docks, and wharves, and mass commuting facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," National Bureau of Economic Research, working paper 16008, May 2010.

Congressional Budget Office. "Issues and Options in Infrastructure Financing," May 2008.

Congress, Congressional Budget Office. Statement of Donald B. Marron before the Subcommittee on Select Revenue Measures, Committee on Ways and Means, U.S. House of Representatives. "Economic Issues in the Use of Tax-Preferred Bond Financing," March 16, 2006.

Congressional Budget Office and Joint Committee on Taxation. Subsidizing Infrastructure Investment with Tax-Preferred Bonds, pub. no. 4005. October 2009.

Council of Development Finance Agencies. "Original Research: CDFA 2011 National Volume Cap Report," July 2012.

Giesecke, James, Peter B. Dixon, and Maureen T. Rimmer. "Regional Macroeconomic Outcomes under Alternative Arrangements for the Financing of Public Infrastructure." *Papers in Regional Science*, vol. 87, no. 1, March 2008.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457.

- . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.
- U.S. Congress, Joint Committee on Taxation, *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.

Whitaker, Stephen, "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity. Washington, DC: The Urban Institute Press, 1991.

Community and Regional Development

EMPOWERMENT ZONE TAX INCENTIVES, DISTRICT OF COLUMBIA TAX INCENTIVES, AND INDIAN RESERVATION TAX INCENTIVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.3	0.3	0.6
2012	0.2	0.1	0.3
2013	0.1	(¹)	0.1
2014	0.1	(¹)	0.1
2015	0.1	(¹)	0.1

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 38(b), 39(d),45A, 168(j), 280C(a), 1391-1397D, 1400-1400B.

Description

Empowerment Zone (EZ) and Enterprise Community (EC) tax incentives were originally created by the Omnibus Budget Reconciliation Act of 1993 and expanded by the Taxpayer Relief Act of 1997 (TRA). The EZ/EC program was expanded again by the Community Renewal Act of 2000. That act also harmonized the eligibility rules for EZs/ECs and created a new geography-based tax incentive program for so-called Renewal Communities (RC), whose revenue costs are included in the section on "New Markets Tax Credit and Renewal Community Tax Incentives." There are currently authorized 40 EZs (30 urban and 10 rural), 95 ECs (65 urban and 30 rural), and 40 RCs (28 urban and 12 rural). The District of Columbia EZ was also authorized in the TRA and is afforded the same tax incentives as the other EZs. The DC Enterprise Zone incentives were extended through

December 31, 2005 by P.L. 108-311, through 2007 by P.L. 109-432, through 2009 by P.L. 110-343, and through 2011 by P.L. 111-312.

Designated areas must satisfy eligibility criteria including poverty rates and population and geographic size limits; they were eligible for benefits through December 31, 2009.

Communities designated as EZs, ECs, and RCs are eligible for a combination of tax and grant incentives to encourage economic development and preferences. Since the initial authorizing legislation was enacted, the number of tax incentives offered has grown, while the value of grant incentives has declined. In dollar terms, for example, the value of grants provided through the first 15 years of the programs is roughly equal to the tax incentives currently being offered every 16.5 months.

For empowerment zones, the tax incentives include a 20 percent employer wage credit for the first \$15,000 of wages for zone residents who work in the zone, \$35,000 in expensing of equipment in investment (in addition to the amount allowed generally) in qualified zone businesses, and expanded tax exempt financing for certain zone facilities, primarily qualified zone businesses.

In addition, qualified public schools in enterprise communities and empowerment zones are allowed access to qualified zone academy bonds (QZABs). QZABs are bonds designated for school modernization and renovation where the federal government offers annual tax credits to the bondholders in lieu of interest payments from the issuer. The federal government is effectively paying the interest on the bonds for the state or local governments. For more on QZABs, see the tax expenditure entry "Tax Credit for Holders of Qualified Zone Academy Bonds" under the Education, Training, Employment, and Social Services heading.

Businesses in RCs are allowed a 15 percent wage credit on the first \$10,000 of wages for qualified workers and an additional \$35,000 in capital equipment expensing. These qualified businesses are also allowed partial deductibility of qualified buildings placed in service. Renewal community tax benefits were available through December 31, 2009.

Enterprise communities receive only the tax exempt financing benefits. Tax exempt bonds for any one community cannot exceed \$3 million and bonds for any one user cannot exceed \$20 million for all zones or

communities. Businesses eligible for this financing are subject to limits that target businesses operating primarily within the zones or communities.

Businesses on Indian reservations are eligible for accelerated depreciation and for a credit for 20 percent of the cost of the first \$20,000 of wages (and health benefits) paid by the employer to tribal members and their spouses, in excess of eligible qualified wages and health insurance cost payments made in 1993. These benefits are available for wages paid, and for property placed in service before December 31, 2007.

In 1997 several tax incentives for the District of Columbia were adopted: a wage tax credit of \$3,000 per employee for wages paid to a District resident, tax-exempt bond financing, and additional first-year expensing of equipment. These apply to areas with poverty rates of 20 percent or more. There is also a zero capital gains rate for business sales in areas with 10 percent poverty rates. Those provisions were originally available through December 31, 2007 and subsequently extended through 2009 by the Emergency Economic Stabilization Act of 2008 (P.L. 110-343). (A credit for first-time home buyers adopted at that time is discussed under the Commerce and Housing heading.)

Impact

Both businesses and employees within the designated areas may benefit from these provisions. Wage credits given to employers can increase the wages of individuals if not constrained by the minimum wage, and these individuals tend to be lower income individuals. If the minimum wage is binding (so that the wage does not change) the effects may show up in increased employment and/or in increased profits to businesses.

Benefits for capital investments may be largely received by business owners initially, although the eventual effects may spread to other parts of the economy. Eligible businesses are likely to be smaller businesses because they must operate within the designated area.

Rationale

These geographically targeted tax provisions were adopted in 1993, although they had been under discussion for some time and had been included in proposed legislation in 1992. Interest in these types of tax subsidies increased after the 1992 Los Angeles riots.

The objective of the subsidies was to revitalize distressed areas through expanded business and employment opportunities, especially for residents of these areas, in order to alleviate social and economic problems, including those associated with drugs and crime. Some of these provisions are temporary and have been extended, most recently in the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) and the Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312).

Assessment

The geographically targeted tax provisions may encourage increased employment and income of individuals living and working in the zones and increased incentives to businesses working in the zones. The small magnitude of the program may be appropriate to allow time to assess how well such benefits are working; current evidence does not provide clear guidelines.

A number of studies have evaluated the effectiveness of the geographically targeted programs. Government-sponsored studies by the Government Accountability Office (GAO) and the Department of Housing and Urban Development (HUD) have failed to link EZ and EC designation with improvement in community outcomes. It is worth noting that these studies examined the Round I EZs and ECs, which received significant grant funding for community organizations. If designation is an important catalyst for economic development, then these studies may represent an upper bound for the effectiveness of the programs. In addition, economic literature has evaluated the effectiveness of zone incentives. Overall, these studies have found modest, if any, effects and call into question the cost-effectiveness of these programs.

If the main target of these provisions is an improvement in the economic status of individuals currently living in these geographic areas, it is not clear to what extent these tax subsidies will succeed in that objective. None of the subsidies are given directly to workers; rather they are received by businesses. Capital subsidies may not ultimately benefit workers; indeed, it is possible that they may encourage more capital intensive businesses and make workers worse off. In addition, workers cannot benefit from higher wages resulting from an employer subsidy if the wage is determined by regulation (the minimum wage) and already artificially high. Wage subsidies are more likely than capital subsidies to be effective in benefitting poor zone or community residents.

Another reservation about enterprise zones is that they may make surrounding communities, that may also be poor, worse off by attracting businesses away from them. And, in general, questions have been raised about the efficiency of provisions that target all beneficiaries in a poor area rather than poor beneficiaries in general.

Selected Bibliography

Bondino, Daniele and Robert T. Greenbaum, "Decomposing the Impacts: Lessons from a Multistate Analysis of Enterprise Zone Programs," *John Glenn Working Paper Series*, The Ohio State University, Working Paper, June 2005.

—, "Do Tax Incentives Affect Local Economic Growth? What Means Impacts Miss in the Analysis of Enterprise Zone Policies," *Regional Science and Urban Economics*, 37(1), 2007, pp.121-136.

Cordes, Joseph J., and Nancy A. Gardner. "Enterprise Zones and Property Values: What We Know (Or Maybe Don't)." National Tax Association *Proceedings*, 94th Annual Conference on Taxation. Washington, DC: National Tax Association, 2002, pp. 279-287.

Couch, Jim F., and J. Douglas Barrett. "Alabama's Enterprise Zones: Designed to Aid the Needy?" *Public Finance Review*, v. 32, no. 1 (January 2004), pp. 65-81.

— , Keith E. Atkinson, and Lewis H. Smith, "The Impact of Enterprise Zones on Job Creation in Mississippi," *Contemporary Economic Policy*, v. 23, April, 2005, pp. 255-260.

Fisher, Peter S., and Alan H. Peters. "Tax and Spending Incentives and Enterprise Zones." *New England Economic Review* (March-April 1997), pp. 109-130.

Garrison, Larry R. "Tax Incentives for Doing Business on Indian Reservations." *Taxes* — *The Magazine* (May 2002), pp. 39-44.

Glaeser, Edward L. and Joshua D. Gottlieb, "The Economics of Place-Making Policies," *Brookings Papers on Economic Activity*, vol. 1 (2008).

Greenbaum, Robert. "Siting it Right: Do States Target Economic Distress When Designating Enterprise Zones?" *Economic Development Quarterly* (February 2004), pp. 67-80.

Greenbaum, Robert T. and John B. Engberg, "The Impact of State Enterprise Zones on Urban Manufacturing Establishments," *Journal of Policy Analysis and Management*, v. 23, spring 2004, pp. 315-339.

Hanson, Andrew, "Local employment, poverty, and property value effects of geographically-targeted tax incentives: An instrumental variables approach," *Regional Science and Urban Economics*, vol. 39, no. 6 (November 2009).

Hirasuna, Don and Joel Michel, "Enterprise Zones: A Review of the Economic Theory and Empirical Evidence, "Policy Brief, Minnesota House of Representatives Research Department, January 2005.

Papke, Leslie. "Enterprise Zones," in *The Encyclopedia of Taxation and Tax Policy*, ed. Joseph J. Cordes, Robert W. Ebel, and Jane G. Gravelle (Washington, D.C.: The Urban Institute, 2005).

— . "What Do We Know About Enterprise Zones?" In *Tax Policy and the Economy V.* 7, ed. James Poterba, National Bureau of Economic Research, Cambridge: MIT Press, 1993.

Neumark, David and Jed Kolko, "Do enterprise zones create jobs? Evidence from California's enterprise zone program ," Journal of Urban Economics, vol. 68, no. 1, July 2010.

Rogers, Cynthia and Jill L. Tao, "Quasi-Experimental Analysis of Targeted Economic Development Programs: Lessons from Florida," *Economic Development Quarterly*, v. 18, August 2004, pp. 269-285.

Stoker, Robert P. And Michael J. Rich. "Lessons and Limits: Tax Incentives and Rebuilding the Gulf Coast After Katrina," *The Brookings Institution, Survey Series*, August 2006.

Sullivan, Martin A. D.C.: A Capitalist City? Arlington, VA: Tax Analysts, 1997.

- U.S. Congress, House Committee on Banking, Finance and Urban Affairs, Subcommittee on Economic Growth and Credit Formation. *The Administration's Empowerment Zone and Enterprise Community Proposal.* Hearing, 103d Congress, 1st Session, May 27 and June 8, 1993.
- , Joint Committee on Taxation. Description of Present Law Regarding Tax Incentives for Renewal Communities and Other Economically Distressed Areas. (JCX-40-02), May 20, 2002.
- , Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in 1997. 105th Congress, 1st Session. Washington, DC: U.S. Government Printing Office, December 17, 1997.
- U.S. Government Accountability Office, Federal Revitalization Programs Are Being Implemented, but Data on the Use of Tax Benefits Are Limited, GAO-04-306, March 2004.
- , Empowerment Zone and Enterprise Community Program: Improvements Occurred in Communities, but the Effect of the Program is Unclear, GAO-06-727, September 2006.
- U.S. Department of Housing and Urban Development, Interim Assessment of the Empowerment Zones and Enterprise Community (EZ/EC) Program: A Progress Report and Appendices, November 2001.

Wilder, Margaret G. and Barry M. Rubin, "Rhetoric versus Reality: A Review of Studies on State Enterprise Zone Programs." *Journal of the American Planning Association*, v. 62, Autumn, 1996, pp. 473-490.

Community and Regional Development

NEW MARKETS TAX CREDIT AND RENEWAL COMMUNITY TAX INCENTIVES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.4	0.4
2012	-	0.6	0.6
2013	-	0.8	0.8
2014	-	0.9	0.9
2015	•	0.9	0.9

Note: This provsions expired at the end of 2011.

Authorization

Sections 45D, 1400F, 1400H, 1400I, and 1400J.

Description

The New Markets Tax Credit (NMTC) is designed to stimulate investment in low-moderate income rural and urban communities nationwide. NMTCs are allocated by the Community Development Financial Institutions (CDFI) Fund, a bureau within the United States Department of the Treasury, under a competitive application process. Investors who make qualified equity investments reduce their federal income tax liability by claiming a credit equal to 39 percent of their investment, over a seven year period. The NMTC program, enacted in 2000, is currently authorized to allocate \$26 billion through the end of 2009. The maximum amount of annual investment eligible for the credit is \$2.5 billion in 2003; \$3.5 billion in 2004; \$2.0 billion in 2005; \$4.1 billion in 2006; \$3.9 billion in 2007; \$5.0 billion in 2008 and 2009, and \$3.5 billion in 2010 and 2011. The 2006 and 2007 totals include increased allocations targeted for areas affected by Hurricane Katrina of \$600 million and \$400 million, respectively.

In contrast to the NMTC, Renewal Community (RC) tax incentives target businesses directly. The four RC tax incentives for businesses are (1) that gains from the sale of assets designated as RC business are taxed at 0 percent, (2) that a qualified RC business is eligible for a federal tax credit worth 15 percent of the first \$10,000 of wages for each qualified employee hired by the RC business, (3) that each state can allocate up to \$12 million for "commercial revitalization expenditures" for businesses in a RC, and (4) that RC businesses can claim up to \$35,000 in section 179 expensing for qualified RC property.

Impact

The NMTC is an investment credit. Thus investors, who are likely in higher income brackets, are the direct beneficiaries. Business owners are the direct beneficiaries of the RC tax incentives. Business owners, like investors, are also likely to fall in higher income brackets. Nevertheless, the tax incentives may encourage investment spending in economically distressed communities. The additional investment could indirectly benefit the workers and residents of these communities. A more direct means of providing assistance to individuals in distressed communities would be direct aid to individuals.

Rationale

The Renewal Community provisions were enacted by the Community Renewal Tax Relief Act of 2000 (P.L. 106-544). The tax incentives in the RC legislation are designed to lower the cost of capital and labor for RC businesses relative to non-RC businesses. Policymakers consider the incentives as a way to encourage investment in RC businesses and help lower the cost of doing business in Renewal Communities. P.L. 109-432 extended the RC coverage through 2008 and required that non-metropolitan counties receive a proportional allocation.

The NMTC was also enacted by the Community Renewal Tax Relief Act of 2000. The NMTC is designed to provide tax relief to investors in economically distressed communities through providing a more certain rate of return with fixed credit rates. The Gulf Opportunity Zone Act of 2005 (P.L. 109-135) targeted an additional \$1 billion in NMTC's towards investment in areas affected by Hurricane Katrina. The Tax Relief and Health Care Act of 2006 (P.L. 109-432) extended the NMTC through 2008, the Emergency Economic Stabilization Act of 2008 (P.L. 110-343) extended the NMTC through 2009, both with \$3.5 billion in allocation authority, and

the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) increased the allocation authority in both 2008 and 2009 to \$5.0 billion. The NMTC was further extended through 2011 by the Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312).

Assessment

The NMTC program is still relatively new, so an evaluation of the program's effectiveness is difficult. The CDFI Fund, which operates the NMTC program, reports that as of November 22, 2011, New Markets Tax Credit allocatees had raised nearly \$21 billion in private equity to invest in low income communities. The potential new investment must be assessed against the fact that the potential target area includes approximately 35 percent of the U.S. population and 40 percent of the land area. In addition, the fixed credit rate, 5 percent for the first three years and 6 percent for the four final years, may not be enough to compensate investors for the underlying risk of the principal investment.

The NMTC is primarily intended to encourage private capital investment in eligible low-income communities. However, the source of the investment funds has implications for the effectiveness of the program in achieving its objective. From an economic perspective, the impact of the NMTC would be greatest in the case where the investment represents new investment in the U.S. economy that would not have occurred in the absence of the program. To date, only one study has empirically assessed the question of whether NMTC investment is funded through shifted investment or whether it represents new investment, finding mixed results.

The capital gain exclusion for RC businesses may shift investment into the RC. Investors could invest more money in a RC business because the after-tax return is higher than similar investments in non-RC businesses. The higher after-tax return will, in theory, encourage more investment in RC businesses, perhaps at the expense of businesses just outside the RC. The employee tax credit for RC businesses may encourage hiring the workers that qualify under the program. The federal tax credit should lower the per unit labor costs of the RC business and may lead to either more workers being hired or more hours worked. The relatively small size of the credit may limit the impact on overall employment in the Renewal Community.

RC businesses realize a tax savings for rehabilitation expenses immediately, rather than over time, potentially encouraging more renovation. The RC businesses could decide to renovate because the immediate tax

savings increases the after-tax rate of return on those expenditures. In short, a tax savings today is worth more than an equal tax savings earned in the future. The accelerated depreciation incentive is similar to the rehabilitation tax benefit. The RC business realizes a tax saving because it can deduct the entire cost of the capital equipment (and receive the tax savings) immediately rather than in increments spread into the future. The accelerated depreciation should lower the cost of capital and encourage more capital investment by RC businesses.

Selected Bibliography

Armistead, P. Jefferson. "New Markets Tax Credits: Issues and Opportunities," prepared for the Pratt Institute Center for Community and Environmental Development, April 2005.

Cohen, Ann Burstein. "Community Renewal Tax Relief's Act's Incentives for Investors — Form over Substance?," *The Tax Adviser*, v. 32, no. 6 (June 2001), pp. 383-384.

— . "Renewal Communities," *The CPA Journal*, March 2004, pp. 46-53.

Gurley-Calvez, Tami, Thomas J. Gilbert, Katherine Harper, Donald J. Marples, and Kevin Daly, "Do Tax Incentives Affect Investment?: An Analysis of the New Markets Tax Credit," *Public Finance Review*, July 2009.

Hicks, Michael J., Dadney Faulk. "The Effect of State-Level Add-On Legislation to the Federal New Markets Tax Credit Program," Ball State University Center for Business and Economic Research, February 2012.

Lambert, Thomas E. And Paul A. Coomes. "An Evaluation of the Effectiveness of Louisville's Enterprise Zone," *Economic Development Quarterly*, v. 15, no. 2, (May 2001), pp. 168-180.

Leichner, Kevin. "Enhancing New Markets Tax Credit Pipeline Flow: Maintaining a Continuius Deal Flow in Spite of Funding Gaps and Market Volatility," Federal Reserve Bank of San Francisco Working Ppaer 2010-06, October 2010.

Marples, Donald J. "New Markets Tax Credit: An Introduction," Library of Congress, Congressional Research Service Report RL34402.

Myerson, Deborah L. "Capitalizing on the New Markets Tax Credit," *The Urban Land Institute Land Use Policy Forum Report*, September 2003.

Rubin, Julia Sass and Gregory M. Stankiewicz. "The New Markets Tax Credit Program: A Midcourse Assessment," *Federal Reserve Bank of San Francisco*, vol. 1, iss. 1, 2005.

Stoker, Robert P. and Michael J. Rich. "Lessons and Limits: Tax Incentives and Rebuilding the Gulf Coast After Katrina," *The Brookings Institution, Survey Series*, August 2006.

- U.S. Congress, House Ways and Means Committee, Manager's Statement on Community Renewal Tax Relief Act of 2000, statement to accompany H.R. 5662 as incorporated in H.R. 4577, Dec. 15, 2001.
- U.S. Congress, Joint Committee on Taxation. Description of Present Law Regarding Tax Incentives for Renewal Communities and Other Economically Distressed Areas, (JCX 40-02), May 20, 2002.
- . Summary of Provisions Contained in the Community Renewal Tax Relief Act of 2000, (JCX 112-00), December 15, 2000.
- U.S. Department of Housing and Urban Development. Tax Incentive Guide for Businesses in Renewal Communities, Empowerment Zones, and Enterprise Communities, FY2002.
- U.S. Department of the Treasury, Community Development Financial Institutions Fund (CDFI), *The Difference the CDFI Fund Makes*, [http://www.cdfifund.gov/impact_we_make/overview.asp], visited Oct. 29, 2008.
- U.S. Government Accountability Office. New Markets Tax Credit Appears to Increase Investment by Investors in Low-Income Communities, but Opportunities Exist to Better Monitor Compliance, GAO-07-296, January 31,2007.
- U.S. General Accounting Office. New Markets Tax Credit Program: Progress Made in Implementation, But Further Actions Needed to Monitor Compliance, GAO-04-326, January 30, 2004.

Community and Regional Development

DISASTER RELIEF PROVISIONS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(1)	(¹)
2012	(¹)	(1)	(¹)
2013	(¹)	(¹)	(¹)
2014	(¹)	(¹)	(¹)
2015	(¹)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Note: The JCT score does not break out costs for this provision separately.

Authorization

Sections 24, 32, 38, 61, 72, 143, 151, 165, and 1400.

Description

This broad category of tax expenditures includes tax provisions intended to assist taxpayers affected by federally declared disasters by temporarily reducing tax obligation. Included here are the tax expenditures created following the 9/11 attacks, Hurricanes Katrina, Rita, Wilma, and Ike, and the Midwest floods of 2008. Many of the provisions specifically related to these disasters have expired or are no longer claimed in significant amounts. This section also discusses general provisions for national disaster relief.

Several provisions were enacted following these disasters to facilitate the economic recovery of the affected regions, including the "Liberty Zone" in lower Manhattan, the Gulf Opportunity (GO) Zone throughout the area affected by Hurricane Katrina, the Midwestern disaster area, which includes Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin, and the area affected by Hurricane Ike. The provisions for the Midwestern disaster area are applicable to the floods,

severe storms, and tornadoes declared from May 20, 2008 through August 1, 2008.

The "Liberty Zone" tax incentives were designed to address the relatively severe economic shock that affected the lower Manhattan region. The tax incentives included increased private-purpose tax-exempt bond capacity for New York (Liberty bonds and special one-time advance refunding) and a special depreciation allowance for certain real property.

Following Hurricane Katrina, the Katrina Emergency Tax Relief Act of 2005 (KETRA; P.L. 109-73) provided tax relief to individuals and businesses affected by the disaster. This was followed by the Gulf Opportunity Zone Act of 2005 (GOZA; P.L. 109-135), which established the Gulf Opportunity (GO) Zone in order to provide relief to those affected by Hurricanes Rita and Wilma and assist in economic recovery. KETRA and GOZA included provisions which allowed individuals to deduct housing and insurance related recovery expenditures from gross income and provided tax credits to employers to encourage them to resume operations and retain employees. KETRA and GOZA also included other business related provisions, which allow for bonus depreciation, expensing of certain property, and a 5-year carryback of net operating losses. Other provisions increased the rehabilitation credit for historic property and expanded the number of tax-exempt bonds.

National disaster relief for all disasters occurring between December 31, 2007 and January 1, 2010 was also included in the Emergency Economic Stabilization Act of 2008 (EESA; P.L. 110-343). The EESA provisions allow: (1) an additional itemized deduction beyond the \$500 per casualty threshold; (2) disaster victims to deduct immediately demolition and repair expenses as well as environmental remediation; and (3) five-year carryback of net operating losses attributable to disasters. EESA also allows the issuance of tax-exempt mortgage revenue bonds to finance low-interest loans to taxpayers in declared disaster areas whose principal residence was damaged by a disaster. Two additional provisions directed to business investment allow for special bonus depreciation and expensing of property.

EESA included tax relief for victims of the Midwestern disasters and Hurricane Ike. EESA also extended the Work Opportunity Tax Credit (WOTC), originally included KETRA for Hurricane Katrina employees. The WOTC allows businesses to claim a credit for qualified wages for employees retained in the Katrina, Rita, and Wilma zone areas, during the period a business is inoperable.

The Hurricane Ike disaster relief allows Texas and Louisiana to allocate additional low income housing tax credits (LIHTC). Tax-exempt bond provisions allowed the states to increase financing to help the localities in the counties and parishes with the construction and renovation of housing stock and public utility property.

Impact

Generally, these tax benefits will reduce the tax burden on individuals and businesses in areas affected by disasters. Below, is a more detailed discussion of the impact of these provisions.

Housing directed provisions. Taxpayers receiving various types of housing assistance are able to deduct these expenses from their gross income meaning that these individuals will pay lower taxes than other taxpayers with the same or smaller economic incomes, all else equal. Employers may also receive tax benefits if they provide temporary housing for disaster victims, reducing their Social Security, Medicare, and unemployment compensation tax base.

The mortgage revenue bond modifications make low interest loans available to homeowners to finance the rehabilitation and rebuilding of disaster affected property. The lower interest rates may induce more residents to remain in disaster areas and rebuild. While short term advantages are clear, the long term impact of encouraging homeowners to remain in disaster stricken areas is less clear.

Business directed provisions. The expensing, bonus depreciation, and carryback provisions allow businesses to take advantage of tax benefits earlier than would otherwise be the case. These provisions encourage firms to make investments and restore property in the disaster area, as well as provide financial relief for businesses with losses due to the disaster. Bonus depreciation is more valuable for long-lived assets, such as buildings. The carryback provision is particularly important for local business in the disaster area where businesses are less likely to be currently profitable.

The work opportunity tax credit (WOTC) encourages and aids employers in keeping employees on the payroll who cannot perform their jobs because the business is not operating.

Rationale

Disaster relief provisions increase federal revenue loss to the government at a time when investment in disaster stricken regions is desired. The rationale for such aid is that the short and long term benefits of this investment outweighs the short term costs.

The Liberty Zone was created by the "Job Creation and Worker Assistance Act of 2002" (P.L. 107-147) after the September 11, 2001 terrorist attacks. Congress designated a portion of lower Manhattan in New York as the "Liberty Zone" (the Zone). Specifically, the Zone "...is the area located on or south of Canal Street, East Broadway (east of its intersection with Canal Street), or Grand Street (east of its intersection with East Broadway) in the Borough of Manhattan in the City of New York, New York." In 2004, P.L. 108-311 extended the Liberty bond program through January 1, 2010. The Job Creation and Tax Cuts Act of 2010 (JCTCA; P.L. 111-) extended these tax incentives through the end of 2010 and the Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended them through 2011.

Following Hurricane Katrina, KETRA provided tax relief to individuals and businesses affected by the disaster. This was followed by GOZA, which established the (GO) Zone in order to provide relief to those affected by Hurricanes Rita and Wilma and assist in economic recovery. The tax provisions enacted as part of KETRA were intended to directly and indirectly assist individuals in recovering from Hurricane Katrina.

Subsequent legislation has extended these provisions in order to continue the recovery effort, including the Tax Relief and Health Care Act of 2006 (P.L. 109-432), EESA, and the JCTCA have both extended some of these benefits. The JCTCA extended the work opportunity tax credit through August 28, 2010, the rehabilitation credit for historic structures in the Gulf Opportunity Zone through the end of 2010, and Gulf Opportunity Zone low-income housing placed-in-service date through the end of 2012. The Tax Relief, Employment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended tax exempt bond financing for the Liberty zone and four provisions for the GO Zone (the increase in the rehabilitation credit, the placed-in-service deadline for the low-income housing credits, tax-exempt bond financing and bonus depreciation) through 2011.

Assessment

Generally, disaster related geographic benefits induce investors to shift investment spending rather than generate new investment spending. Thus, the localized tax incentives redistribute tax revenue and investment from all federal taxpayers to taxpayers and investors in the designated area. From a national perspective, the aggregate economic benefit of geographically based incentives is not clear. That is, it is unclear that the benefits to the targeted area (increased investment) outweigh the associated costs (decreased revenue and the opportunity cost of alternative investment).

There is also relatively little evidence to indicate the effectiveness of the housing tax provisions in increasing employment and business activity in the affected areas. The evidence is based on previous studies of provisions targeting low income areas. These studies do not indicate that tax incentives are very successful in increasing employment or economic activity. However, the studies may not provide sufficient evidence to gauge the effects on a much larger geographic area composed of both higher and lower income individuals affected by a major disaster.

In general, tax provisions aiding specific activities or types of investment lead to a misallocation of resources. This can even be the case where actual investment or activity does not appear to be influenced by the provisions. At the same time, one can make the case that all taxpayers should assist in recovery of an area affected by such a large scale disaster, as a part of national risk-spreading and thus some inefficiency may be warranted.

The tax benefit, therefore, is the present value of the tax deferred. Businesses that use the bonus depreciation will pay less taxes today, but the tax burden in the future will be slightly higher as depreciation expenses are smaller than they would have otherwise been. The accelerated depreciation may induce some firms to invest in new capital; however, the magnitude of the impact of the incentive is uncertain. For more on accelerated depreciation for business property, see the entry in this volume titled: "Expensing of Depreciable Business Property."

The benefit of expanding the WOTC eases the tax burden on employers. The effectiveness of WOTC, however, may be limited by the relative cost and complexity of administrative compliance. For more on the WOTC, see the entry in this volume titled: "Work Opportunity Tax Credit."

Selected Bibliography

Bram, Jason. "New York City's Economy Before and After September 11," Federal Reserve Bank of New York: Current Issues in Economics and Finance, February 2003.

Chernick, Howard, and Andrew F. Haughwout. "Tax Policy and the Fiscal Cost of Disasters: NY and 9/11," *National Tax Journal*, v. 59, September 2006, pp. 561-578.

Glaeser, Edward L. and Jesse M. Shapiro. "Cities and Warfare: The Impact of Terrorism on Urban Form." *NBER Working Paper Series 8696*, National Bureau of Economic Research, December 2001.

Gravelle, Jane G. "Tax Incentives in the Aftermath of Hurricane Katrina," *Municipal Finance Journal*, v. 26, Fall 2005, pp. 1-13.

Internal Revenue Service, Information for Taxpayers Affected by Hurricanes Katrina, Rita, and Wilma, Publication 4492, January 1, 2006.

Keightley, Mark P. Tax Treatment of Net Operating Losses, Library of Congress, Congressional Research Service, Report RL34535, September 2010.

Levine, Linda. *The Work Opportunity Tax Credit (WOTC)*, Library of Congress, Congressional Research Service, Report RL30089, June 2010.

Lunder, Erika. *The Gulf Opportunity Zone Act of 2005*, Library of Congress, Congressional Research Service, Report RS22344, February 2006.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457, September 2010.

Richardson, James A. "Katrina/Rita: The Ultimate Test for Tax Policy?" *National Tax Journal*, v. 59, September 2006, pp.551-560.

Stoker, Robert P. and Michael J. Rich. Lessons and Limits: Tax Incentives and Rebuilding the Gulf Coast After Katrina, Metropolitan Policy Program, Washington, DC: The Brookings Institution, August 2006.

Teefy, Jennifer. Permanent Tax Relief Provisions for Disaster Victims as Presented in the Internal Revenue Code. Library of Congress, Congressional Research Service Report RL33642, February 2009.

- Tolan Jr, Patrick E. Questioning Tax Expenditures for Economic Recovery. Tax Notes Special Report, April 2010, pp. 67-92.
- U.S. Congress, Joint Committee on Taxation, Technical Explanation of the Revenue Provisions of H.R. 4440, The "Gulf Opportunity Zone Act of 2005," as Passed by The House Of Representatives And The Senate, JCX-88-05, December 16, 2005.
- , Joint Committee on Taxation. Technical Explanation of the Job Creation and Worker Assistance Act of 2002, (JCX 12-02), March 6, 2002.
- , Joint Committee on Taxation, Technical Explanation of the Revenue Provisions of H.R. 3768, The Katrina Emergency Relief Act of

- 2005, As Passed by the House of Representatives and the Senate, JCX-69-05, Washington, DC, September 21, 2005.
- U.S. Government Accountability Office, Tax Administration: Information is Not Available to Determine Whether \$5 Billion in Liberty Zone Tax Benefits Will be Realized. Report GAO-03-1102, October 2003.

Vigdor, Jacob. "The Economic Aftermath of Hurricane Katrina." Journal of Economic Perspectives. v. 22, Fall 2008, pp. 135-154.

Westly, Christopher, Robert P. Murphy, and William L. Anderson. "Institutions, Incentives, and Disaster Relief." *International Journal of Social Economics*, 35, no. 7, 2008, pp. 501-511.

Wildasin, David. "Local Public Finance in the Aftermath of September 11." *Journal of Urban Economics*, v. 51 (March 2002), pp. 225-237.

Community and Regional Development

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT SEWAGE, WATER, AND HAZARDOUS WASTE FACILITIES BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.3	0.1	0.4
2012	0.3	0.1	0.4
2013	0.3	0.1	0.4
2014	0.4	0.1	0.5
2015	0.4	0.1	0.5

Authorization

Sections 103, 141, 142, and 146.

Description

Interest income from state and local bonds used to finance the construction of sewage facilities, facilities for the furnishing of water, and facilities for the disposal of hazardous waste is tax exempt.

Some of these bonds are classified as private-activity bonds rather than as governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

The bonds classified as private activity for these facilities are subject to the state private-activity bond annual volume cap. This cap is equal to the greater of \$95 per capita or \$284.56 million in 2012.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to finance the facilities at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the sewage, water, and hazardous waste facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under *General Purpose Public Assistance:* Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

Prior to 1968, no restriction was placed on the ability of state and local governments to issue tax-exempt bonds to finance sewage, water, and hazardous waste facilities. Although the Revenue and Expenditure Control Act of 1968 imposed tests that would have restricted issuance of these bonds, it provided a specific exception for sewage and water (allowing continued unrestricted issuance).

Water-furnishing facilities must be made available to the general public (including electric utility and other businesses), and must be either operated by a governmental unit or have their rates approved or established by a governmental unit. The hazardous waste exception was adopted by the Tax Reform Act of 1986. The portion of a hazardous waste facility that can be financed with tax-exempt bonds cannot exceed the portion of the facility to be used by entities other than the owner or operator of the facility. In other words, a hazardous waste producer cannot use tax-exempt bonds to finance a facility to treat its own wastes.

Assessment

Many observers suggest that sewage, water, and hazardous waste treatment facilities will be under-provided by state and local governments because the benefit of the facilities extends beyond state and local government boundaries. In addition, there are significant costs, real and perceived, associated with siting an unwanted hazardous waste facility. The federal subsidy through this tax expenditure may encourage increased investment as well as spread the cost to more potential beneficiaries, federal taxpayers.

Alternatively, subsidizing hazardous waste treatment facilities reduces the cost of producing waste if the subsidy is passed through to waste producers. When the cost of producing waste declines, then waste emitters may in turn increase their waste output. Thus, subsidizing waste treatment facilities may actually increase waste production. Recognizing the potential effect of subsidizing private investment in waste treatment, Congress eliminated a general subsidy for private investment in waste and pollution control equipment in the Tax Reform Act of 1986.

Even if a subsidy for sewage, water, and hazardous waste facilities is considered appropriate, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, bonds for these facilities increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest cost on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the range of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," National Bureau of Economic Research, working paper 16008, May 2010.

Congressional Budget Office and Joint Committee on Taxation, Subsidizing Infrastructure Investment with Tax-Preferred Bonds, Pub. No. 4005, October 2009.

Copeland, Claudia, William Mallett, and Steven Maguire. Legislative Options for Financing Water Infrastructure. Library of Congress, Congressional Research Service Report R42467.

Council of Development Finance Agencies. "Original Research: CDFA 2011 National Volume Cap Report," July 2012.

Fredriksson, Per G. "The Siting of Hazardous Waste Facilities in Federal Systems: The Political Economy of NIMBY [Not In My Back Yard]," *Environmental and Resource Economics* vol. 15, no. 1 (January 2000), pp. 75-87.

Government Accountability Office. Rural Water Infrastructure: Additional Coordination Can Help Avoid Potentially Duplicative Application Requirements, GAO-13-111, Oct 16, 2012.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

- U.S. Congress, Joint Committee on Taxation. *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.
- U.S. Department of Treasury, Internal Revenue Service. *Tax-Exempt Private Activity Bonds*, Publication 4078, June 2004.

Whitaker, Stephen, "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. Environmental Infrastructure and the State-Local Sector: Should Tax-Exempt Bond Law Be Changed? Library of Congress, Congressional Research Service Report 91-866 E. Washington, DC: December 16, 1991.

— . The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activities. Washington, DC: The Urban Institute Press, 1991.

Community and Regional Development

BUILD AMERICA BONDS AND RECOVERY ZONE ECONOMIC DEVELOPMENT BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	2.6	-	2.6
2012	4.1	-	4.1
2013	4.1	-	4.1
2014	4.1	-	4.1
2015	4.1	-	4.1

Authorization

Sections 54A, 54AA, and 1400U.

Description

In the 111th Congress, the American Recovery and Reinvestment Act (P.L. 111-5, ARRA) created a new type of tax credit bond, the Build America Bond (BABs), which allows issuers the option of receiving a direct payment from the U.S. Treasury or tax credits for investors instead of tax-exempt interest payments. The legislation also provided for a deeper subsidy version of BABs called Recovery Zone Economic Development Bonds for economically distressed areas. This tax expenditure includes both of these tax-preferred bond programs.

Build America Bonds

BABs are not targeted in their designation, as are other tax credit bonds (TCBs, such as qualified zone academy bonds, qualified school construction bonds, and clean renewable energy bonds). The volume of BABs was not limited, but had to be issued before January 1, 2011. The purpose was constrained only by the requirement that "the interest on such obligation would (but for this section) be excludible from gross income under section

103." Thus, BABs were issued for any purpose that would have been eligible for traditional tax-exempt bond financing other than private activity bonds. The bonds must have been issued before January 1, 2011.

The BAB credit amount is 35 percent of the interest rate established between the buyer and issuer of the bond. The issuer and investor agree on terms either as a result of a competitive bid process or through a negotiated sale. For example, if the negotiated taxable interest rate is 8 percent, on \$100,000 of bond principal, then the credit is \$2,800 (8 percent times \$100,000 times 35 percent). The issuer had the option of receiving a direct payment from the Treasury equal to the tax credit amount or allowing the investor to claim the tax credit. The issuers chose the direct payment option for all BABs issued because the net interest cost was less than traditional tax-exempt debt of like terms. The interest cost to the issuer choosing the direct payment is \$8,000 less the \$2,800, or \$5,200. If the tax-exempt rate is greater than 5.20 percent (requiring a payment of greater than \$5,200) then the direct payment BAB would have been a better option for the issuer. Note that the direct payment option means the bond proceeds must have been used for capital expenditures.

Recovery Zone Economic Development Bonds

Recovery Zone Economic Development Bonds (RZEDBs) are a special type of BAB. Like BABs, the authority to issue RZEDBs expired on December 31, 2010. Instead of the 35 percent credit, RZEDBs offered a 45 percent credit and were targeted to economically distressed areas. Specifically, these bonds were for any area designated by the issuer (1) as having significant poverty, high unemployment, high rate of home foreclosures, or general distress; (2) economically distressed by reason of the closure or realignment of a military installation pursuant to the Defense Base Closure and Realignment Act of 1990; or as (3) an empowerment zone or renewal community. The purpose of the bonds was, as the name implies, economic development. The bonds were used for

(1) capital expenditures paid or incurred with respect to property located in such zone [recovery zone], (2) expenditures for public infrastructure and construction of public facilities, and (3) expenditures for job training and educational programs.

The volume limit for RZEDBs was \$10 billion. The bond authority was allocated to states (including the District of Columbia and the territories) based on the state's employment decline in 2008. Every state that

experienced an employment decline in 2008 received an allocation that bore the same ratio as the state's share of the total employment decline in those states. All states and U.S. territories, regardless of employment changes, were guaranteed a minimum of 0.90 percent of the \$10 billion.

Large municipalities and counties were also guaranteed a share of the state allocations based on a jurisdiction's share of the aggregate employment decline in its state for 2008. A large jurisdiction is defined as one with a population greater than 100,000. For counties with large municipalities receiving an allocation, the county population was reduced by the municipal population for purposes of the 100,000 threshold.

Impact

The impact of BABs on the municipal bond market has been significant, although it is unclear how much additional public infrastructure investment and economic stimulus the BAB program created. Through December 31, 2010, when the authority to issue BABs expired, \$181.5 billion of BABs had been issued, over one-fifth of all municipal issuance over the same period (21.5 percent). A U.S. Treasury Department report on BABs estimated that through March 2010, the bonds had saved municipal issuers roughly \$12 billion in interest costs. The BAB debt likely displaced tax-exempt debt in many cases, though some portion may have been unplanned public investment or future projects that were expedited to take advantage of BAB financing.

The impact of RZEDBs is less clear because the potential issuance was capped and limited to specific, state-defined economically distressed areas. The authority to issue RZEDBs expired on January 1, 2011, which may further diminish the impact of the program because some authority may have gone unused. In 2009, the IRS report that \$471 million of RZEDBs had been issued. However, the relatively sizable credit of 45 percent may have induced even more spending for 2010, the following year, than would have otherwise been the case.

Rationale

The American Recovery and Reinvestment Act created BABs and RZEDBs. These bonds offer a federal subsidy larger than that provided by tax-exempt bonds and were intended to spur more infrastructure spending and to aid state and local governments. Proponents also cited the possible

stimulative effect of additional public infrastructure spending arising from this program during the economic downturn in 2009 and 2010.

Assessment

There are three principal stakeholders in the tax-preferred bond market: (1) state and local government issuers; (2) investors; and (3) the federal government. For issuers, BABs are best assessed against the most common alternative mechanism for financing public infrastructure: tax-exempt bonds. With direct-payment BABs, the federal government subsidizes the issuer directly, unlike with tax-exempt bonds which provide an indirect subsidy through lower interest rates. Either way, issuers receive an interest rate subsidy. In theory, if the demand for BABs exceeded that for traditional tax-exempt bonds issued for the same purpose, then interest costs for the issuer would have been further reduced. Also, if the credit rate were set such that the bonds were more attractive relative to other taxable instruments, issuers might have realized an additional interest cost savings.

When BABs are evaluated against tax-exempt bonds, the credit rate should equal the ratio of the investor's forgone market interest rate on tax-exempt bonds divided by one minus the investor's tax rate. Investors in higher tax marginal income tax brackets would need a higher rate to equate the return on BABs to that of tax-exempt bonds. Thus, high-income investors would prefer tax-exempt bonds to BABs. In contrast, non-taxable investors, international investors, and lower marginal tax rate investors would find BABs more attractive than tax-exempt bonds.

For the federal government, the BAB mechanism is a more economically efficient subsidy than tax-exempt bonds, particularly in cases where the issuer claims the direct payment (all BABs issued have been direct-payment BABs). The direct payment to the issuer mechanism, which is modeled after the "taxable bond option," was first considered in the late 1960s. Later, in 1976, the following was posited by the then-President of the Federal Reserve Bank in Boston, Frank E. Morris:

The taxable bond option is a tool to improve the efficiency of our financial markets and, at the same time, to reduce substantially the element of inequity in our income tax system which stems from tax exemption [on municipal bonds]. It will reduce the interest costs on municipal borrowings, but the benefits will accrue proportionally as much to cities with strong credit ratings as to those with serious financial problems.

The authority to issue BABs expired January 1, 2011. There has been significant support for extending the BAB program from issuers, Congress, and the Obama Administration. Most supporters, however, propose a credit rate lower than the current 35 percent. Some observers are concerned that BABs will completely displace tax-exempt bonds, creating uncertainty in a market that has existed since inception of the federal income tax.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," National Bureau of Economic Research, working paper 16008, May 2010.

Congressional Budget Office. Tax Credit Bonds and the Federal Cost Financing Public Expenditures, July 2004.

Congressional Budget Office and Joint Committee on Taxation. Subsidizing Infrastructure Investment with Tax-Preferred Bonds, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," *Proceedings of the 91st Annual Conference on Taxation*, National Tax Association.

Joint Committee on Taxation. Present Law and Issues Related to Infrastructure Finance, Joint Committee Print JCX-83-08, October 29, 2008.

Joint Committee on Taxation. Present Law and Background Related to State and Local Government Bonds, Joint Committee Print JCX-14-06, March 16, 2006.

Joint Committee on Taxation, General Explanation of Tax Legislation Enacted in 1997, Joint Committee Print JCS-23-97, December 17, 1997, 40-41.

Maguire, Steven. *Tax Credit Bonds: Overview and Analysis*. Library of Congress, Congressional Research Service Report R40523.

Morris, Frank E. "The Taxable Bond Option," *National Tax Journal*, vol. 29, no. 3, September 1976, p. 356.

- U.S. Treasury Department. "Treasury Analysis of Build America Bonds and Issuer Net Borrowing Costs," April 2, 2010.
- . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

Matheson, Thornton. "Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2007, pp. 155-162

Community and Regional Development

ELIMINATE REQUIREMENT THAT FINANCIAL INSTITUTIONS ALLOCATE INTEREST EXPENSES ATTRIBUTABLE TO TAX-EXEMPT BOND INTEREST

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.3	0.3
2012	-	0.3	0.3
2013	-	0.3	0.3
2014	-	0.3	0.3
2015	-	0.3	0.3

Authorization

Sections 265(a), 265(b), 291(e), and 141.

Description

In the 111th Congress, the American Recovery and Reinvestment Act (P.L. 111-5, ARRA) created new rules for banks (and other financial institutions) that invest in tax-exempt bonds. Banks deduct interest expense, the interest they pay to depositors, as a cost of doing business, thereby reducing their tax liability. They have to reduce this interest expense, however, if the bank has invested in tax-exempt bonds. Generally, banks and financial institutions are required to reduce their interest rate expense deduction by the same ratio as tax-exempt bonds have to all assets in their portfolio. For example, if their interest expense is \$1,000 and tax-exempt bonds represent 8 percent of their total assets, they must reduce the interest expense deduction by \$80 (\$1,000 times 8 percent). Reducing the size of the deduction (to \$920) increases their tax liability. The rule is in place to keep banks from benefitting from two tax preferences for the same investment.

Tax-exempt bond investments by individuals and non-financial institutions that make up less than 2 percent of their investment portfolio,

however, are not required to reduce their interest expense deduction. Also, investments by banks in qualified tax-exempt bonds receive more favorable tax treatment. Under this provision, the interest expense deduction is reduced by 20 percent of the interest expense allocable to these bonds. This confers a more favorable treatment on the *qualified* tax-exempt bonds and is often identified as the "two percent rule."

A qualified tax-exempt bond for this provision is one that: (1) has been issued since August 7, 1986, by a qualified small issuer, (2) is not a private activity bond, and (3) is designated by the issuer as qualifying for the exception from the general rule of section 265(b). A small issuer is one that issues less than \$10 million per year.

This tax expenditure explains the temporary changes to these rules as provided for in ARRA: they apply only to bonds issued in 2009 and 2010. First, the "two percent rule" described above is expanded from non-financial entities and individuals to banks and financial institutions. Thus, banks will not have to reduce their interest expense deduction if their tax-exempt bond holdings are less than two percent of total assets. Second, the small issuer definition is modified, increasing the annual "safe-harbor" issuance to \$30 million from \$10 million. The rules for what constitutes "annual issuance" were loosened such that more issuers would qualify as a small issuer.

For more information on tax-exempt bonds generally, see the entry Public Purpose State and Local Government Debt.

Impact

The impact of this provision is uncertain. However, the broader pool of potential investors for these bonds will likely increase the demand for the bonds and push down interest rates. Lower interest costs will encourage more of this type of financing. The two-year window for this provision will likely limit the impact.

Rationale

The American Recovery and Reinvestment Act (ARRA, P.L. 111-5) modified these rules for small issuers to encourage public infrastructure investment generally and to help state and local governments issue debt. In addition, the modified rules for borrowers that engage in pooled financing will make it easier for these issuers to qualify for this tax preference.

Assessment

The temporary elimination of the requirement that banks and financial institutions reduce their interest expense deduction for tax-exempt bond holdings will likely increase demand for these bonds and confer some interest cost savings to issuers. The magnitude of the interest cost saving is unclear and thus the effectiveness of the provision is uncertain. The increased complexity of the tax code, however, would likely reduce the effectiveness and economic efficiency of the provision.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation. Subsidizing Infrastructure Investment with Tax-Preferred Bonds, pub. no. 4005. October 2009.

Joint Committee on Taxation. Present Law and Issues Related to Infrastructure Finance, Joint Committee Print JCX-83-08, October 29, 2008.

Joint Committee on Taxation. Present Law and Background Related to State and Local Government Bonds, Joint Committee Print JCX-14-06, March 16, 2006.

Maguire, Steven. Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

Walton, David A. An Overview of the Small-Issuer Exemption, Municipal Finance Journal, vol. 18, no. 3 (Fall, 1997).

Education, Training, Employment and Social Services: Education and Training

PARENTAL PERSONAL EXEMPTION FOR STUDENTS AGE 19-23

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	4.4	•	4.4
2012	2.0	-	2.0
2013	2.2	-	2.2
2014	2.4	-	2.4
2015	2.1	<u>-</u>	2.1

Authorization

Sections 151, 152.

Description

Taxpayers may claim dependency exemptions for children 19 through 23 years of age who are full-time students at least five months, possibly non-consecutive, during the year, even if the children have gross income in excess of the personal exemption amount (\$3,700 in 2011 and \$3,800 in 2012) that normally would be a disqualifying factor. Other standard dependency tests must be met, however, including the taxpayer's provision of one-half of the dependents' support. The dependents cannot claim personal exemptions on their own returns, however, and their standard deduction may be lower. In 2010, with some exceptions, the standard deduction for dependents is equal to the greater of \$950 or their earned income plus \$300 provided the sum does not exceed the standard deduction amount of \$5,800 (\$5,950 in 2012) for single taxpayers. A scholarship or similar income that is not excludable from the dependent's income is considered earned income for standard deduction purposes. Most of the

dollar amounts listed in this entry change annually due to indexation for inflation.

Impact

The benefit to taxpayers arises for two reasons. First, the total sum of deductions and exemptions claimed by the parents and the students may be larger than it would be without this provision. Second, parents are often subject to a higher marginal tax rate than their children attending college. Thus, a given amount of deductions and exemptions reduces parents' tax liability to a greater degree than it would reduce the students'.

In 2009, parents may have lost some or all of the student dependency exemption if their adjusted gross income was greater than the inflation-adjusted threshold for phasing out personal exemptions. In 2009, the threshold amounts begin at: \$250,200 for joint returns, \$166,800 for single returns, or \$208,500 for heads of household. The personal exemption phaseout, however, is eliminated for 2010-2012 and is scheduled to be reinstated beginning in 2013.

Rationale

With its codification in 1954, the Internal Revenue Code first allowed parents to claim dependency exemptions for their children regardless of the children's gross income, provided they were less than 19 years old or were full-time students for at least 5 months. Under prior law, such exemptions could not be claimed for any child whose gross income exceeded \$600 (the amount of the personal exemption at the time). Committee reports for the legislation noted that the prior rule was a hardship for parents with children in school and constituted a disincentive to work for the children.

Under the 1954 Code, dependents whose exemptions could be claimed by their parents could also claim personal exemptions on their own returns. The Tax Reform Act of 1986 disallowed double exemptions, limiting claims just to the parents. It did allow a partial standard deduction for students equal to the greater of \$500 or earned income up to the generally applicable standard deduction amount. As a result, students with no earned income were able to shelter up to \$500 in unearned income from taxation. The \$500 is indexed for inflation as is the amount of the standard deduction.

The Technical and Miscellaneous Revenue Act of 1988 restricted the student dependency exemption to children under the age of 24. Students who

are older than 23 can be claimed as dependents only if their gross income is less than the personal exemption amount.

The Taxpayer Relief Act of 1997 raised students' standard deduction to the greater of \$700 (\$500 adjusted for inflation) or the total of earned income plus \$250 in unearned income provided the total did not exceed the full standard deduction. This change, effective beginning in 1998, enables students with earned income greater than \$700, but less than the standard deduction amount, and with little unearned income, to shelter their unearned income from taxation; it also exempts them from the requirement to file a separate tax return (unless they must do so to claim a refund of withheld tax). The limit on unearned income is adjusted annually for inflation.

The Working Family Tax Relief Act of 2004 (P.L. 108-311) revised the definition of a child for tax purposes, beginning with tax year 2005. Specifically, the law replaced the definition of a dependent for the personal exemption with requirements (or tests) that define new categories of dependents. Under this definition, a child is a qualifying child of the taxpayer if the child satisfies three tests: (1) the child has not yet attained a specified age; (2) the child has a specified relationship to the taxpayer; and (3) the child has the same principal place of abode as the taxpayer for more than half the taxable year. Fostering Connections to Success and Increasing Adoptions Act of 2008 (P.L. 110-351) made additional changes to the definition of a child.

Assessment

The student dependency exemption was created before the development of broad-based federal student aid programs, and some of its effects might be questioned in light of their objectives. The exemption principally benefits families with higher incomes, and the tax savings are not related to the cost of education. In contrast, most federal student aid is awarded according to financial need formulas that reflect both available family resources and educational cost.

Nonetheless, the original rationale for the student dependency exemption arguably remains valid. If the exemption did not exist, as was the case before 1954, students who earned more than the personal exemption amount would cause their parents to lose a dependency exemption worth hundreds of dollars, depending on the latter's tax bracket. Unless they would earn substantially more money, students who knew of this consequence

might stop working at the point their earnings reached the personal exemption amount.

Selected Bibliography

Bittker, Boris I. "Federal Income Taxation and the Family," 27 Stanford Law Review, pp. 1444-1456 (1975).

Jackson, Pamela J. Standard Deduction and Personal Dependency Amounts for Children 14 and Over or Students, Library of Congress, Congressional Research Service Report RS20072, (Washington, DC, June 28, 2006).

Scott, Christine. Tax Benefits for Families: Changes in the Definition of a Child, Library of Congress, Congressional Research Service Report RS22016, (Washington, DC, March 10, 2006).

U.S. Congress, Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986 (H.R. 3838, 99th Congress; Public Law 99-514), (Washington, DC, May 4, 1987), pp. 22-24.

Education, Training, Employment, and Social Services: Education and Training

DEDUCTION FOR CLASSROOM EXPENSES OF ELEMENTARY AND SECONDARY SCHOOL EDUCATORS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	-	0.2
2012	0.1	-	0.1
2013	(¹)	-	(¹)
2014	(¹)	•	(¹)
2015	(1)	-	$\binom{1}{1}$

⁽¹⁾ Positive tax expenditure less than \$50 million.

Authorization

Section 62.

Description

An eligible employee of a public (including charter) and private elementary or secondary school may claim an above-the-line deduction for certain unreimbursed expenses. An eligible educator is defined to be an individual who, with respect to any tax year, is an elementary or secondary school teacher, instructor, counselor, principal, or aide in a school for a minimum of 900 hours in a school year. The expenses must be associated with the purchase of the following items for use by the educator in the classroom: books; supplies (other than nonathletic supplies for health or physical education courses); computer equipment, software, and services; other equipment; and supplementary materials. The taxpayer may deduct up to \$250 spent on these items.

The amount of deductible classroom expenses is not limited by the taxpayer's income. Educators must reduce the total amount they expend on eligible items by any interest from an Education Savings Bond or distribution from a Qualified Tuition (Section 529) Program or Coverdell Education Savings Account that was excluded from income. In other words, if educators or members of their tax filing units utilize earnings from these savings vehicles to pay tuition and other qualified educational expenses, only those classroom expenses that exceed the value of these income exclusions are deductible.

Impact

Educators, as an occupation, are actively involved in improving the human capital of the nation. The availability of the classroom expense deduction may encourage educators who already are doing so to continue to use their own money to make purchases to enhance their students' educational experience, and potentially encourages other educators to start doing the same. Alternatively, the deduction may be a windfall to educators. As noted in the table below, amore than 70% of the deductions are taken by tax filing units with adjusted gross incomes of between \$50,000 and \$200,000.

Distribution by Income Class of Classroom Expense Deduction at 2009 Income Levels

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	1.3
\$10 to \$20	3.1
\$20 to \$30	4.0
\$30 to \$40	7.6
\$40 to \$50	9.0
\$50 to \$75	22.0
\$75 to \$100	19.6
\$100 to \$200	30.2
\$200 and over	3.1

Source: IRS Statistics of Income. This is not a distribution of the tax expenditures, but of the amount deducted; it is classified by adjusted gross income.

Rationale

The classroom deduction was enacted on a temporary basis as part of the Job Creation and Worker Assistance Act of 2002. It was reauthorized through December 31, 2009 as part of the Emergency Economic Stabilization Act of 2008 at Division C. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 extended the deduction for 2010 and 2011. Under current law, the deduction expired on December 31, 2011.

Prior to the classroom deduction's enactment, the only tax benefit available to educators for trade/business expenses was the permanent deduction at Section 162 of the Code. That deduction remains available to educators but in order to take it, the total of their miscellaneous itemized deductions must exceed 2% of adjusted gross income. An above-the-line deduction targeted at educators was considered socially desirable because teachers voluntarily augment school funds by purchasing items thought to enhance the quality of children's education.

Assessment

Taxpayers with teachers in their filing units who make trade/business purchases in excess of \$250 or who have other miscellaneous itemized deductions may now have to compute tax liability twice — under Code Sections 62 and 162 — to determine which provides the greater savings. Taxpayers also must now consider how the educator expense deduction interacts with other tax provisions. The temporary above-the-line deduction means, for example, that higher income families with eligible educators may not have to subject classroom expenditures of up to \$250 to the 3% limit on itemized deductions. (Higher income taxpayers must reduce total allowable itemized deductions by 3% of their income in excess of an inflation-adjusted threshold.) By lowering adjusted gross income, the classroom expense deduction also allows taxpayers to claim more of those deductions subject to an income floor (e.g., medical expenses).

In addition to increasing complexity, the classroom expense deduction treats educators differently than others whose business-related expenses are subject to the 2% floor on miscellaneous itemized deductions and the 3% limit on total itemized deductions. Further, the above-the-line deduction is allowed against the alternate minimum tax while the Section 162 deduction is not.

Selected Bibliography

Levine, Linda. The Tax Deduction for Classroom Expenses of Elementary and Secondary School Teachers. Congressional Research Service Report RS21682. Washington, DC: updated June 16, 2010.

Education, Training, Employment, and Social Services: Education and Training

TAX CREDITS FOR TUITION FOR POST-SECONDARY EDUCATION

American Opportunity Tax Credit (AOTC)/Hope Scholarship Credit*

Estimated Revenue Loss

[In billions of dollars]

_	Fiscal year	Individuals	Corporations	Total
_	2011	7.1	-	7.1
	2012	8.3	-	8.3
	2013	4.1	-	4.1
	2014	2.5	-	2.5
	2015	2.5	-	2.5

Lifetime Learning Credit Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.9		1.9
2012	2.1	-	2.1
2013	2.8	-	2.8
2014	3.0	-	3.0
2015	3.0	-	3.0

^{*} The AOTC temporarily replaced the Hope Scholarship Credit from 2009-2012. Beginning in 2013, the AOTC is scheduled to expire and the Hope Scholarship Credit will again be in effect. Estimate includes refundability associated with the outlay effects for the AOTC.

Authorization

Section 25A.

Description

The Hope Scholarship Credit

The Hope Scholarship Credit can be claimed for each eligible student in a family (including the taxpayer, the spouse, or their dependents) for two taxable years for qualified expenses incurred while attending an eligible postsecondary education program, provided the student has not completed the first two years of undergraduate education. An eligible student is one enrolled on at least a half-time basis for at least one academic period during the tax year in a program leading to a degree, certificate, or credential at an institution eligible to participate in U.S. Department of Education student aid programs; these include most accredited public, private, and proprietary postsecondary institutions. The per student credit is equal to 100% of the first \$1,000 of qualified tuition and academic fees and 50% of the next \$1,000. The value of the expenses is indexed for inflation. In 2008, the last year the Hope Scholarship Credit was in effect, the level of expenses was equal to \$1,200. Hence, in 2008 the maximum value of the credit was \$1,800. Tuition and fees financed with scholarships, Pell Grants, veterans' education assistance, and other tax-free educational assistance are not qualified expenses. The nonrefundable credit is phased out for single taxpayers with modified adjusted gross income between \$40,000 and \$50,000 (\$80,000 and \$100,000 for joint return taxpayers). These income thresholds are indexed to inflation. In 2008, the most recent year the credit was in effect, these phase out levels were equal to \$48,000-\$58,000 for single taxpayers (\$96,000). The credit cannot be claimed for the same student for whom a Lifetime Learning Credit is claimed in the same tax year. Taxpayers claiming the Hope Scholarship credit cannot concurrently take the temporary deduction for qualified higher education expenses. They also cannot claim a credit based on the same expenses used to figure the tax-free portion of a distribution from a Coverdell Education Savings Account or a Qualified Tuition (Section 529) Plan.

The American Opportunity Tax Credit

The American Opportunity Tax Credit (AOTC) was enacted as part of the American Recovery and Reinvestment Act of 2009, temporarily replacing the Hope Credit for 2009 and 2010. The AOTC was extended for 2011 and 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. (Under current law, beginning in 2013 taxpayers will no longer be able to claim the AOTC. Taxpayers may still be eligible to claim either the Hope Credit or the Lifetime Learning Credit, both permanent tax provisions.)

The AOTC can be claimed for each eligible student in a family for no more than four years of postsecondary education, including any years in which the Hope Scholarship credit was claimed for the student, for qualified expenses incurred while attending an eligible postsecondary education program. An eligible student is one enrolled on at least a half-time basis for at least one academic period during the tax year in a program leading to a degree, certificate, or credential at an institution eligible to participate in U.S. Department of Education student aid programs; these include most accredited public, private, and proprietary postsecondary institutions. The AOTC is equal to 100% of the first \$2,000 of qualified tuition, academic fees and required course materials (e.g., text books), and 25% of the next \$2,000. Hence, the maximum value of the credit per student is \$2,500.

The AOTC is partially refundable, meaning taxpayers with little to no tax liability may still be able to benefit from this tax provision. A tax credit is partially refundable if, in cases where the credit is larger than the taxpayer's tax liability, the Internal Revenue Service (IRS) only refunds part of the difference. The refundable portion of the AOTC is calculated as 40% of the value of the credit the taxpayer is eligible for based on qualifying education expenses. Therefore, if the taxpayer was eligible for \$2,500 of the AOTC, but had no tax liability, they could still receive \$1,000 (40% of \$2,500) as a refund.

Tuition and fees financed with scholarships, Pell Grants, veterans' education assistance, and other tax-free educational assistance are not qualified expenses. The AOTC is phased out for single taxpayers with modified adjusted gross income between \$80,000 and \$90,000 (\$160,000 and \$180,000 for joint return taxpayers). These phase out levels are not indexed for inflation. The credit cannot be claimed for the same student for whom a Lifetime Learning Credit is claimed in the same tax year. Taxpayers claiming the AOTC cannot concurrently take the temporary deduction for qualified higher education expenses. They also cannot claim a credit based on the same expenses used to figure the tax-free portion of a distribution from a Coverdell Education Savings Account or a Qualified Tuition (Section 529) Plan.

Lifetime Learning Credit

The Lifetime Learning Credit provides a 20% credit per return for the first \$10,000 of qualified tuition and fees that taxpayers pay for themselves, their spouses, or their dependents. The credit is available for those enrolled in one or more courses of undergraduate or graduate instruction at an eligible institution to acquire or improve job skills. There is no limit on the number of years for which the credit may be claimed. Tuition and fees financed with scholarships, Pell Grants, veterans' education assistance, and other tax-free educational assistance are not qualified expenses. The nonrefundable credit is phased out for single taxpayers with modified adjusted gross income between \$40,000 and \$50,000 (\$80,000 and \$100,000 for joint return taxpayers). These income thresholds are indexed to inflation. In 2012, these phase out levels were equal to \$52,000-\$62,000 for single taxpayers (\$104,000-\$124,000 for joint return taxpayers). The Lifetime Learning credit cannot be claimed for the same student for whom another tuition credit is claimed in the same tax year. Taxpayers claiming the credit cannot concurrently take the temporary deduction for qualified higher education expenses.

Impact

The cost of investing in postsecondary education is reduced for those recipients whose marginal (i.e., last) investment dollar is affected by these credits. Other things equal, these individuals will either increase the amount they invest or participate when they otherwise would not. However, some of the federal revenue loss will be received by individuals whose investment decisions are not altered by the credits. As shown in the table below, which reflects the temporary refundability of the credit, the ceilings limit the benefit available to the highest income individuals. About two-thirds (67.1%) percent of the credits are taken by tax filing units with adjusted gross incomes of between \$50,000 and \$200,000.

Distribution by Income Class of the Tax Expenditure
for Education Tax Credits, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	1.9
\$10 to \$20	4.6
\$20 to \$30	7.9
\$30 to \$40	8.6
\$40 to \$50	9.1
\$50 to \$75	20.1
\$75 to \$100	18.3
\$100 to \$200	28.7
\$200 and over	0.8

Rationale

The Hope Scholarship and Lifetime Learning credits were enacted in the Taxpayer Relief Act of 1997, along with a number of other higher education tax benefits. Their intent is to make postsecondary education more affordable for middle-income families and students who might not qualify for much need-based federal student aid. The American Recovery and Reinvestment Act of 2009, authorized the American Opportunity Tax Credit (AOTC) for tax years 2009 and 2010 and the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 extended the credit through 2012.

Assessment

A federal subsidy of higher education has three potential economic justifications: a capital market failure; external benefits; and nonneutral federal income tax treatment of physical and human capital. Subsidies that correct these problems are said to provide taxpayers with "social benefits."

Many students find themselves unable to finance their postsecondary education from earnings and personal or family savings. Student mobility and a lack of property to pledge as loan collateral would require commercial lenders to charge high interest rates on education loans in light of the high risk of default. As a result, students often find themselves unable to afford

loans from the financial sector. This financial constraint bears more heavily on lower income groups than on higher income groups and accordingly, leads to inequality of opportunity to acquire a postsecondary education. It also is an inefficient allocation of resources because these students, on average, might earn a higher rate of return on loans for education than the financial sector could earn on alternative loans.

This "failure" of the capital markets is attributable to the legal restriction against pledging an individual's future labor supply as loan collateral, that is, against indentured servitude. Since modern society rejects this practice, the federal government has strived to correct the market failure by providing a guarantee to absorb most of the financial sector's default risk associated with postsecondary loans to students. This financial support is provided through the Direct Loan Program. (See the entry "Exclusion of Interest on State and Local Government Student Loan Bonds" for more information.) The loan program is an entitlement and equalizes the financing cost for some portion of most students' education investment. When combined with Pell Grants for lower income students, it appears that at least some portion of the capital market failure has been corrected and inequality of opportunity has been diminished.

Some benefits from postsecondary education may accrue not to the individual being educated, but rather to the members of society at large. As these external benefits are not valued by individuals considering educational purchases, they invest less than is optimal for society (even assuming no capital market imperfections). External benefits are variously described as taking the form of increased productivity and better citizenship (e.g., greater likelihood of participating in elections).

Potential students induced to enroll in higher education by the AOTC/Hope Scholarship and Lifetime Learning credits cause investment in education to increase. The overall effectiveness of the tax credits depends upon whether the cost of the marginal investment dollar of those already investing in higher education is reduced, however. It is clear from the structure of these tax credits that tuition and fee payments will exceed qualified tuition and fees for a large number of credit-eligible students, and as a result, they will not experience a price effect (e.g., the Hope Scholarship credit will not reduce by 50% the last dollar these students invest in postsecondary education). Although their investment decision is unaffected by the credits, these students can claim them (i.e., reap a "windfall gain") but

federal taxpayers get no offsetting social benefits in the form of an increased quantity of investment.

Selected Bibliography

Burman, Leonard E. with Elaine Maag, Peter Orszag, Jeffrey Rohaly, and John O'Hare. *The Distributional Consequences of Federal Assistance for Higher Education: The Intersection of Tax and Spending Programs*, The Urban Institute, Discussion Paper No. 26. Washington, DC: August 2005.

Crandall-Hollick, Margot. *The American Opportunity Tax Credit: Overview, Analysis, and Policy Options.* Congressional Research Service Report R42561. Washington, DC: June 11, 2012.

Crandall-Hollick, Margot. Higher Education Tax Benefits: Brief Overview and Budgetary Effects. Congressional Research Service Report R41967. Washington, DC: September 25, 2012.

Dynarski, Susan M. and Judith Scott-Clayton. "Simplify and Focus the Education Tax Incentives." *Tax Notes* (June 12, 2006). pp. 1290-1292.

Dynarski, Susan M. "Hope for Whom? Financial Aid for the Middle Class and Its Impact on College Attendance." *National Tax Journal*, v. 53, no. 3 (September 2000). pp. 629-661.

Government Accountability Office, Student Aid and Postsecondary Tax Preferences: Limited Research Exists on Effectiveness of Tools to Assist Students and Families through Title IV Student Aid and Tax Preferences, GAO-05-684, July 2005.

Hoblitzell, Barbara A. and Tiffany L. Smith. *Hope Works: Student Use of Education Tax Credits*. Indianapolis, IN: Lumina Foundation for Education Inc., November 2001.

Joint Committee on Taxation. Background and Present Law Relating to Tax Benefits for Education. JCX-62-12. Washington, DC: July 23, 2012.

Long, Bridget Terry. The Impact of Federal Tax Credits for Higher Education Expenses. National Bureau of Economic Research, Working Paper 9553. Cambridge, MA: March 2003.

Maag, Elaine with David Mundel, Lois Rice, and Kim Rueben. "Subsidizing Higher Education through Tax and Spending Programs," *Tax Policy Issues and Options*, no. 18 (May 2007). pp. 1-7.

Reschovsky, Andrew. "Higher Education Tax Policies," in Sandy Baum with Michael McPerson and Patricia Steele (eds.), *The Effectiveness of Student Aid Policies: What Research Tells Us*, Indianapolis, IN: Lumina Foundation for Education Inc., 2008.

Rosenberg, Donald L. and Allen Finley Schuldenfrei. "Education Expenses: An Analysis of the New American Opportunity Tax Credit." *The CPA Journal* (February 2010). pp. 53-55.

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education." *N.Y.U. Tax Law Review*, 61 (2007-2008). pp. 295-394.

Stegmaier, Sean Michael. "Tax Incentives for Higher Education in the Internal Revenue Code: Education Tax Expenditure Reform and the Inclusion of Refundable Credits." *Southwestern University Law Review*, v. 37, no. 1 (Jan. 2008). pp. 135-181.

Turner, Nicholas. Effect of Tax-Based Federal Student Aid on College Enrollment. National Tax Journal, vol. 64, no. 3 (September 2011), pp. 839-862.

U.S. Government Accountability Office. Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes, GAO-08-717T. Washington, DC: May 2008.

Wolanin, Thomas R. Rhetoric and Reality: Effects and Consequences of the HOPE Scholarship. Washington, DC: Institute for Higher Education Policy, Working Paper, April 2001.

Zimmerman, Dennis. "Education Tax Credits," in Joseph J. Cordes with Robert D. Ebel and Jane G. Gravelle, *Encyclopedia of Taxation and Tax Policy*, Washington, DC: Urban Institute, 2005.

Education, Training, Employment, and Social Services: Education and Training

DEDUCTION FOR INTEREST ON STUDENT LOANS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.1	*	1.1
2012	1.2	-	1.2
2013	0.7	-	0.7
2014	0.5	-	0.5
2015	0.5	-	0.5

Authorization

Section 221.

Description

Taxpayers may deduct interest paid on qualified education loans in determining their adjusted gross income. The deduction, which is limited to \$2,500 annually, is not restricted to itemizers (i.e., it is an above-the-line deduction). Taxpayers are not eligible for the deduction if they can be claimed as a dependent by another taxpayer. In 2012, the amount that can be deducted phases out for taxpayers with modified adjusted gross income between \$60,000 and \$75,000 on individual returns and between \$125,000 and \$155,000 on joint returns. Hence individual taxpayers with income above \$75,000 (\$155,000 for taxpayers filing joint returns) will be ineligible to claim this deduction.

The Economic Growth and Tax Relief Reconciliation Act of 2001 modified this deduction in two ways that were in effect between 2002 through the end of 2010. First, the limitation of this deduction to interest paid within the first 60 months during which interest payments are required was temporarily repealed. Second, the income levels at which the deduction

began to phase out were raised. A sunset provision in the Economic Growth and Tax Relief Reconciliation Act of 2001 would have caused the deduction to revert to its pre-2002 structure in 2011, but the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 extended the Economic Growth and Tax Relief Reconciliation Act modifications through the end of 2012.

Qualified education loans are indebtedness incurred solely to pay qualified higher education expenses of taxpayers, their spouse, or their dependents who were at the time the debt was incurred students enrolled on at least a half-time basis in a program leading to a degree, certificate, or credential at an institution eligible to participate in U.S. Department of Education student aid programs; these include most accredited public, private, and proprietary postsecondary institutions. Other eligible institutions are hospitals and health care facilities that conduct internship or residency programs leading to a certificate or degree. Qualified higher education expenses generally equal the cost of attendance (e.g., tuition, fees, books, equipment, room and board, and transportation) minus scholarships and other education payments excluded from income taxes. Refinancings are considered to be qualified loans, but loans from related parties are not.

Impact

The deduction benefits taxpayers according to their marginal tax rate (see Appendix A). Most education debt is incurred by students, who generally have low tax rates immediately after they leave school and begin loan repayment. However, some debt is incurred by parents who are in higher tax brackets.

The cap on the amount of debt that can be deducted annually limits the tax benefit's impact for those who have large loans. The income ceilings limit the benefit's availability to the highest income individuals, as shown in the table below. More than three-fourths of the tax reduction that results from this deduction benefits tax filing units with adjusted gross incomes between \$50,000 and \$200,000.

Distribution by Income	Class	of the	Tax	Expenditure
for the Student	Loan .	Deduc	tion,	2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	1.3
\$20 to \$30	3.9
\$30 to \$40	7.1
\$40 to \$50	8.5
\$50 to \$75	26.3
\$75 to \$100	14.4
\$100 to \$200	38.6
\$200 and over	0.0

Rationale

The interest deduction for qualified education loans was authorized by the Taxpayer Relief Act of 1997 as one of a number of benefits intended to make postsecondary education more affordable for middle-income families who are unlikely to qualify for much need-based federal student aid. The interest deduction is seen as a way to help taxpayers repay education loan debt, which has risen substantially in recent years. The Economic Growth and Tax Relief Reconciliation Act of 2001 eliminated the limitation of this deduction to interest paid within the first 60 months of repayment and increased the income level at which the deduction phases out. These provisions were scheduled to expire after 2010, but the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2012 extended them for two years through the end of 2012.

Assessment

The tax deduction can be justified both as a way of encouraging persons to undertake additional education and as a means of easing repayment burdens when graduates begin full-time employment. Whether the deduction will affect enrollment decisions is unknown; it might only change the way families finance college costs. The deduction may allow some graduates to accept public service jobs that pay low salaries, although their tax savings would not be large. The deduction has been criticized for providing a subsidy

to all borrowers (aside from those with higher income), even those with little debt, and for doing little to help borrowers who have large loans. It is unlikely to reduce loan defaults, which generally are related to low income and unemployment.

Selected Bibliography

Burman, Leonard E. with Elaine Maag, Peter Orszag, Jeffrey Rohaly, and John O'Hare. *The Distributional Consequences of Federal Assistance for Higher Education: The Intersection of Tax and Spending Programs*, The Urban Institute, Discussion Paper No. 26. Washington, DC: August 2005.

Choy, Susan P. and Xiaojie Li. *Debt Burden: A Comparison of 1992-93 and 1999-2000 Bachelor's Degree Recipients a Year After Graduating.* U.S. Department of Education, National Center for Education Statistics, NCES 2005-170. Washington, DC: July 7, 2005.

Crandall-Hollick, Margot. Higher Education Tax Benefits: Brief Overview and Budgetary Effects. Congressional Research Service Report R41967. Washington, DC: September 25, 2012.

Hanushek, Eric A. with Charles Ka Yui Leung and Kuzey Yilmaz. Borrowing Constraints, College Aid, and Intergenerational Mobility. National Bureau of Economic Research, Working Paper 10711. Cambridge, MA: August 2004.

Joint Committee on Taxation. Background and Present Law Relating to Tax Benefits for Education. JCX-62-12. Washington, DC: July 23, 2012.

Maag, Elaine and Katie Fitzpatrick. Federal Financial Aid for Higher Education: Programs and Prospects. The Urban Institute. Washington, DC: January 2004.

Project on Student Debt. Addressing Student Loan Repayment Burdens. Washington, DC: February 2006.

Rothstein, Jesse and Cecilia Elena Rouse. *Constrained After College: Student Loans and Early Career Occupational Choices*. National Bureau of Economic Research, Working Paper 13117. Cambridge, MA: May 2007.

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education." *N.Y.U. Tax Law Review*, 61 (2007-2008). pp. 295-394.

State PIRGs' Higher Education Project. Paying Back, Not Giving Back: Student Debt's Negative Impact on Public Service Career Opportunities. Washington, DC: April 2006.

Education, Training, Employment, and Social Services: Education and Training

EXCLUSION OF EARNINGS OF COVERDELL EDUCATIONAL SAVINGS ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	*	0.1
2012	0.1	-	0.1
2013	0.1	-	0.1
2014	0.1	-	0.1
2015	0.2	-	0.2

Authorization

Section 530.

Description

Coverdell Education Savings Accounts (ESAs), formerly known as "Education IRAs," are tax-advantaged investment accounts that can be used to pay for both higher education expenses and elementary and secondary school expenses. (The applicability of Coverdells for elementary and secondary school expenses is a temporary modification to Coverdells that is scheduled to expire at the end of 2012.) The specific tax advantage of a Coverdell is that distributions (i.e., withdrawals) from this account are tax-free, if they are used to pay for qualified education expenses. (Contributions to Coverdells are not tax deductible.) If the distribution is used to pay for nonqualified expenses, a portion of the distribution is taxable and may also be subject to a 10% penalty.

A contributor may fund multiple accounts for the same beneficiary, and a student may be the designated beneficiary of multiple accounts. The total amount that can be contributed to all Coverdells for a given beneficiary is limited to \$2,000 per year. Any contributor can contribute up to \$2,000 into a beneficiary's Coverdell, as long as the *contributor's income* is below certain limits. Specifically, as the contributor's income exceeds \$95,000 (\$190,000 for married joint filers), the maximum amount the contributor can donate (\$2,000) is reduced. When the contributor's income exceeds \$110,000 (\$220,000 for married joint filers), a contributor is prohibited from funding a Coverdell.

A 6% tax is imposed if total contributions exceed the annual perbeneficiary limit. Funds withdrawn from one Coverdell ESA in a 12-month period and rolled over to another ESA on behalf of the same beneficiary or certain of their family members are excluded from the annual contribution limit and are not taxable.

Contributions may be made until beneficiaries reach age 18, although they may continue beyond that age for special needs beneficiaries. Similarly, with the exception of special needs beneficiaries, account balances typically must be totally distributed when beneficiaries attain age 30. Contributions are not deductible, but account earnings grow on a tax-deferred basis.

The specific tax-advantage of a Coverdell is that the withdrawals from these plans are excludable from gross income, and hence not subject to the income tax, if they are used to pay for specific specific education expenses incurred in a given year. These expenses are referred to as adjusted qualified education expenses (AQEE). Qualified education expenses are expenses related to enrollment or attendance at either a higher education institution or elementary and secondary school. Specifically, these expenses include the following:

Qualified higher education expenses, which are defined as follows:

- Tuition, fees, books, supplies, and equipment required for enrollment or attendance at an eligible educational institution;
- Expenses for special needs services incurred in connection with enrollment or attendance of a special-needs beneficiary at an eligible educational institution; and
- Room and board expenses for students enrolled at least half-time at an eligible educational institution, and,

Qualified elementary and secondary school (i.e., K-12) education expenses (through the end of 2012), which are defined as follows:

- Tuition, fees, books, supplies, equipment, academic tutoring, and special needs services for special needs beneficiaries;
- Room and board, uniforms, transportation, and supplementary items and services (included extended day programs) if these expenses are required or provided by an eligible K-12 institution in connection with attendance; and
- Computer technology, equipment, or Internet access and related services if used by the beneficiary and the beneficiary's family during any of the years the beneficiary is in elementary and secondary school.

To determine the amount of *adjusted* qualified education expenses, qualified higher education expenses must be reduced by the amount of any tax-free educational assistance. Tax-free educational assistance includes the tax-free portion of scholarships and fellowships, veterans' educational assistance, Pell grants, and employer-provided educational assistance. They also must be reduced by the value of expenses used to claim education tax credits. (Eligible postsecondary institutions are those eligible to participate in U.S. Department of Education student aid programs; these include most accredited public, private, and proprietary postsecondary institutions. A qualifying elementary or secondary school is any public, private, or religious school that provides elementary or secondary education as determined under state law.)

Many provisions of Coverdells have been temporarily modified and these modifications are scheduled to expire at the end of 2012. These modifications were enacted by the Economic Growth and Tax Relief Reconciliation Act of 2001 and were initially scheduled to expire at the end of 2010. At the end of 2010, they were extended for 2011 and 2012 by the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010.

These modification include:

- An increase in the maximum contribution amount for a beneficiary to \$2,000 per year. If this modification expires as scheduled, the maximum contribution amount for a beneficiary will be \$500 per year;
- An expansion of qualified education expenses to include elementary and secondary school expenses. If this modification

expires as scheduled, qualified expenses will be limited to higher education expenses;

- An increase in the income range at which the contribution limit phases out. Currently, the phase-out range for married taxpayers is \$190,000-\$220,000, not indexed for inflation (double the phase-out range for singles). If this modification expires as scheduled, the phase-out range for married taxpayers will be \$150,000-\$160,000, not indexed for inflation;
- A waiver on the age limitations for special needs beneficiaries.
 If this modification expires as scheduled, contributions can be made up until the beneficiary is 18 years old and all distributions must be made when the beneficiary turns 30 for both non-special needs and special needs beneficiaries;
- Coordination of tax-free Coverdell distributions and education tax credits. Beneficiaries who use Coverdells can currently also claim education tax credits without penalty (expenses paid for with Coverdell funds cannot be used to claim credits). If this modification expires as scheduled, and taxpayers claim education tax credits when they take a Coverdell distribution, their distribution will be subject to taxation;
- Coordination between contributions to Coverdells and qualified tuition programs. Currently, contributions can be made to both a QTP and Coverdell for the same beneficiary without penalty. If this modification expires as scheduled, Contributions made to a Coverdell for a beneficiary will be subject to a 6% excise tax if contributions for the same beneficiary are made to a QTP in the same year.

Impact

Both the exclusion from gross income of account earnings withdrawn to pay for qualified expenses confers benefits to tax filing units according to their marginal tax rate (see Appendix A). These benefits are most likely to accrue to higher income families that have the means to save on a regular basis.

Tax benefits from Coverdell ESAs might be offset by reductions in federal student aid, much of which is awarded to students based on their financial need. For most aid applicants, the impact is felt to the extent that balances in Coverdell ESAs (assets) and withdrawals from them (income) are expected to be contributed toward postsecondary education expenses under the traditional federal student aid system: a greater expected family contribution (EFC) can lead to reduced financial need and decreased eligibility for federal student aid, although Coverdells generally have a minimal impact on a student's federal financial aid because they have a minimal impact on student's expected family contribution (EFC). The EFC is the amount that, according to the federal need analysis methodology, can be contributed by a student and the student's family toward the student's cost of education. All else being equal, the *higher* a student's EFC, the *lower* the amount of federal student need-based aid he or she will receive. A variety of financial resources are reported by students and their families on the Free Application for Federal Student Aid (FAFSA). These resources are assessed at differing rates under the federal need analysis methodology

Distributions from Coverdell plans are generally not considered income in the federal need analysis calculation and are therefore not reported on the FAFSA, although the value of the Coverdell is considered an asset in the federal need analysis methodology and should be reported on the FAFSA.

When calculating a student's EFC, the federal need analysis methodology considers a percentage of the student's assets and a percentage of the parents' assets reported on the FAFSA. A student's assets are assessed at a flat rate of 20%, while parents' assets are assessed on a sliding scale, resulting in a maximum effective rate of up to 5.64%. Therefore, the ownership of the asset is important when determining how it will affect a student's EFC. For students who are classified as dependent students for FAFSA purposes (which differs from the classification of dependent for tax purposes), Coverdells are considered an asset of the parent, as long as the custodial ownership of the plan belongs either to the parent or student. Therefore, dependent students benefit from a lower assessment rate on Coverdells, which, all else being equal, results in a lower EFC and the potential for more federal need-based student aid. For students who are classified as independent students for FAFSA purposes, Coverdells are treated as an asset of the student, as long as the custodial ownership of the plan belongs either to the student or student's spouse (if applicable). Coverdells that are owned by someone other than the student, parent, or spouse are not reported as an asset on the FAFSA, but distributions from these Coverdells are reported as untaxed income for the beneficiary on the FAFSA. In general, income is assessed at a higher rate compared to assets in the federal need analysis methodology.

Rationale

Tax-favored saving for higher education expenses was authorized by the Taxpayer Relief Act of 1997 as one of a number of tax benefits for postsecondary education. These benefits reflect congressional concern that families are having increasing difficulty paying for college. They also reflect an intention to subsidize middle-income families that otherwise do not qualify for much need-based federal student aid. The Economic Growth and Tax Relief Reconciliation Act of 2001 expanded eligible expenses to those incurred in connection with enrollment in public and private K-12 schools, along with other changes. It was intended, in part, to encourage families to exercise school choice (i.e., attend alternatives to the traditional public school). The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 extended the provisions enacted in 2001 for two additional years, through 2012.

Assessment

The tax exclusion could be justified both as a way of encouraging families to use their own resources for college expenses and as a means of easing their financing burdens. Families that have the wherewithal to save are more likely to benefit. Whether families will save additional sums might be doubted. Tax benefits for Coverdell ESAs are not related to the student's cost of attendance or other family resources, as is most federal student aid for higher education.

Higher income families also are more likely than lower income families to establish accounts for their children's K-12 education expenses. The amount of the tax benefit, particularly if the maximum contribution to an account is not made each year, is probably too small to affect a family's decision about whether to send their children to public or private school.

Selected Bibliography

Davis, Albert J. "Choice Complexity in Tax Benefits for Higher Education," *National Tax Journal*, v. 55, no. 3 (September 2002). pp. 509-530.

Dynarski, Susan M. "Who Benefits from the College Saving Incentives? Income, Educational Expectations and the Value of the 529 and Coverdell," *National Tax Journal*, v. 57, no. 2 (June 2004). pp. 359-383.

Dynarski, Susan M. "High-Income Families Benefit Most from New Education Savings Incentives," *Tax Policy Issues and Options*, no. 9 (February 2005). pp. 1-5.

Crandall-Hollick, Margot. Higher Education Tax Benefits: Brief Overview and Budgetary Effects. Congressional Research Service Report R41967. Washington, DC: September 25, 2012.

Hurley, Joseph. The Best Way to Save for College: A Complete Guide to 529 Plans 2011-2012. Pittsford, NY: JFH Innovative LLC, 2011.

Investment Company Institute. *Profile of Households Saving for College*. Washington, DC: Fall 2003.

Joint Committee on Taxation. Background and Present Law Relating to Tax Benefits for Education. JCX-62-12. Washington, DC: July 23, 2012.

Levine, Linda. *Education Tax Benefits: Are They Permanent or Temporary?* Congressional Research Service Report RS21870. Washington, DC: updated September 8, 2010.

Ma, Jennifer. "Education Savings Incentives and Household Saving: Evidence from the 2000 TIAA-CREF Survey of Participant Finances." Chapter in: College Choices: The Economics of Where to Go, When to Go, and How to Pay for It, pp. 169-206. National Bureau of Economic Research. Cambridge, MA: 2004.

Ma, Jennifer. To Save or Not to Save: A Closer Look at Saving and Financial Aid. TIAA-CREF Institute, Working Paper 18-120103. NY, NY: December 2003.

Education, Training, Employment, and Social Services: Education and Training

DEDUCTION FOR HIGHER EDUCATION EXPENSES

Estimated Revenue Loss* [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.8	-	0.8
2012	0.2	-	0/2
2013	-	-	-
2014	-	-	-
2015	-	-	

Authorization

Section 222.

Description

Taxpayers may deduct qualified tuition and related expenses for postsecondary education from their adjusted gross income. The deduction is "above-the-line," that is, it is not restricted to itemizers. Taxpayers are eligible for the deduction if they pay qualified expenses for themselves, their spouses, or their dependents. Individuals who may be claimed as dependents on another taxpayer's return, married persons filing separately, and nonresident aliens who do not elect to be treated as resident aliens cannot take the deduction.

The maximum deduction per return is \$4,000 for taxpayers with modified adjusted gross income that does not exceed \$65,000 (\$130,000 on joint returns). Taxpayers with incomes above \$65,000 (\$130,000 for joint returns) but not above \$80,000 (\$160,000 for joint returns) can deduct up to \$2,000 in qualified expenses. Taxpayers with incomes above \$80,000 (\$160,000 for joint returns) cannot claim this deduction. These income limits

are not adjusted for inflation and there is no phase-out of the deduction based upon income.

The deduction may be taken for qualified tuition and related expenses in lieu of claiming higher education tax credits for the same student. Taxpayers cannot deduct qualified expenses under Section 222 if they deduct these expenses under any other provision in the Code (e.g., the itemized deduction for education that maintains or improves skills required in a taxpayer's current profession).

Before the deduction can be taken, qualified expenses must be reduced if financed with scholarships, Pell Grants, employer-provided educational assistance, veterans' educational assistance, and any other nontaxable income (other than gifts and inheritances). Qualified expenses also must be reduced if paid with tax-free interest from Education Savings Bonds, tax-free distributions from Coverdell Education Savings Accounts, and tax-free earnings withdrawn from Qualified Tuition Plans.

Qualified tuition and related expenses are tuition and fees required for enrollment or attendance in an institution eligible to participate in U.S. Department of Education student aid programs; these include most accredited public, private, and proprietary postsecondary institutions. Like the Lifetime Learning Credit, the deduction may be taken for any year of undergraduate or graduate enrollment. It too is available to part-time and full-time students, and the program need not lead to a degree, credential, or certificate.

Impact

The deduction benefits taxpayers according to their marginal tax rate (see Appendix A). Students usually have relatively low tax rates, but they may be part of families in higher tax brackets. The maximum amount of deductible expenses limits the tax benefit's impact on individuals attending schools with comparatively high tuition and fees. Because the income limits are not adjusted for inflation, the deduction might be available to fewer taxpayers over time.

Distribution	by	Income	Class o	o f	Education	Deduction
		at 2009	Incom	e.	Levels	

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	30.6
\$10 to \$20	8.9
\$20 to \$30	6.1
\$30 to \$40	5.5
\$40 to \$50	5.0
\$50 to \$75	14.3
\$75 to \$100	7.0
\$100 to \$200	22.6
\$200 and over	0.0

Source: Data obtained from IRS *Statistics of Income*. This is not a distribution of the tax expenditure, but of the amount deducted. The ultimate impact of this deduction on tax liability will depend on the taxpayer's tax bracket. This data is classified by adjusted gross income.

Rationale

The temporary deduction was authorized by the Economic Growth and Tax Relief Reconciliation Act of 2001. It was reauthorized through December 31, 2009 as part of the Emergency Economic Stabilization Act of 2008 at Division C. It was extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010. The deduction builds upon postsecondary tax benefits that were initiated by the Taxpayer Relief Act of 1997. It is one additional means that Congress has chosen to help families who are unlikely to qualify for much need-based federal student aid pay for escalating college expenses.

Assessment

The deduction has been criticized for adding to the complexity faced by families trying to determine which higher education tax benefits they are eligible for and what combination is their optimal mix for financing postsecondary education. Since 2002, for example, those taxpayers whose incomes fell below the Hope Scholarship or Lifetime Learning Credit's lower income cutoff could claim either a credit or the deduction. In addition,

the deduction must be coordinated with tax-advantaged college savings vehicles (e.g., Coverdell Education Savings Accounts and Qualified Tuition Plans).

Selected Bibliography

Burman, Leonard E. with Elaine Maag, Peter Orszag, Jeffrey Rohaly, and John O'Hare. *The Distributional Consequences of Federal Assistance for Higher Education: The Intersection of Tax and Spending Programs*, The Urban Institute, Discussion Paper No. 26. Washington, DC: August 2005.

Crandall-Hollick, Margot. Higher Education Tax Benefits: Brief Overview and Budgetary Effects. Congressional Research Service Report R41967. Washington, DC: September 25, 2012.

Davis, Albert J. "Choice Complexity in Tax Benefits for Higher Education," *National Tax Journal*, v. 55, no. 3 (September 2002). pp. 509-530.

Dynarski, Susan M. and Judith Scott-Clayton. "Simplify and Focus the Education Tax Incentives." *Tax Notes* (June 12, 2006). pp. 1290-1292.

Joint Committee on Taxation. Background and Present Law Relating to Tax Benefits for Education. JCX-62-12. Washington, DC: July 23, 2012.

Levine, Linda. Education Tax Benefits: Are They Permanent or Temporary? Congressional Research Service Report RS21870. Washington, DC: updated September 8, 2010.

Maag, Elaine with David Mundel, Lois Rice, and Kim Rueben. "Subsidizing Higher Education through Tax and Spending Programs," *Tax Policy Issues and Options*, no. 18 (May 2007). pp. 1-7.

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education." *N.Y.U. Tax Law Review*, 61 (2007-2008). pp. 295-394.

Turner, Nicholas. The Effect of Tax-Based Federal Student Aid on College Enrollment. National Tax Journal, v.64, no.3, September 2010, pp. 839-862.

U.S. Government Accountability Office. Multiple Higher Education Tax Incentives Create Opportunities for Taxpayers to Make Costly Mistakes, GAO-08-717T. Washington, DC: May 2008.

Education, Training, Employment and Social Services: Education and Training

EXCLUSION OF TAX ON EARNINGS OF QUALIFIED TUITION PROGRAMS

Prepaid Tuition Programs Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	•	(¹)
2012	0.1	-	0.1
2013	0.1	-	0.1
2014	0.1	-	0.1
2015	0.1	-	0.1

Savings Account Programs Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.5	-	0.4
2012	0.6		0.6
2013	0.7	-	0.7
2014	0.8	-	0.8
2015	1.0	-	1.0

⁽¹⁾ Positive tax expenditures less than \$50 million.

Authorization

Section 529.

Description

Qualified Tuition Programs (QTPs), also known as "529 Plans" for the section of the tax code which dictates their tax treatment, are tax-advantaged investment trusts used to pay for higher education expenses. The specific tax-advantage of a 529 plan is that distributions (i.e., withdrawals) from these plans are tax-free if they are used to pay for qualified higher education expenses. There is no federal income tax deduction for contributions to QTPs. If some or all of the distribution is used to pay for nonqualified expenses, then a portion of the distribution is taxable, and may also be subject to a 10% penalty tax.

There are two types of Qualified Tuition Programs (QTPs): "prepaid" plans and "savings" plans. Prepaid plans enable a contributor to make payments on behalf of beneficiaries for a specified number of academic periods or course units at current prices, thus providing a hedge against tuition inflation. Savings plans enable payments to be made on behalf of beneficiaries into a variety of investment vehicles offered by plan sponsors (e.g., age-based portfolios whose mix of stocks and bonds changes the closer the beneficiary's matriculation date or an option with a guaranteed rate of return).

The specific tax-advantage of a qualified tuition plan is that the withdrawals from these plans are excludable from gross income, and hence not subject to the income tax, if they are used to pay for specific higher education expenses incurred in a given year. These expenses are referred to as adjusted qualified higher education expenses (AQHEE). Qualified higher education expenses are expenses related to enrollment or attendance at an eligible educational institution and include the following:

- Tuition, fees, books, supplies, and equipment required for enrollment or attendance at an eligible educational institution;
- Expenses for special needs services incurred in connection with enrollment or attendance of a special-needs beneficiary at an eligible educational institution; and
- Room and board expenses for students enrolled at least half-time at an eligible educational institution.

To determine the amount of *adjusted* qualified higher education expenses, qualified higher education expenses must be reduced by the amount of any tax-free educational assistance. Tax free educational

assistance includes the tax-free portion of scholarships and fellowships, veterans' educational assistance, Pell grants, and employer-provided educational assistance. They also must be reduced by the value of expenses used to claim education tax credits. (An eligible education institution for purposes of qualified tuition plans is any college, university, vocational school, or other postsecondary educational institution eligible to participate in a student aid program administered by the U.S. Department of Education.)

In addition to their income tax treatment, the Internal Revenue Code specifies their gift tax treatment. Payments to QTPs are considered completed gifts of present interest from the contributor to the beneficiary meaning that an individual could contribute up to \$13,000 in 2009 (subject to indexation) as a tax-free gift per QTP beneficiary. A special gifting provision allows a QTP contributor to make an excludable gift of up to \$65,000 in one year by treating the payment as if it were made over 5 years. By making QTP contributions completed gifts, their value generally is removed from the contributor's taxable estate.

A QTP must receive cash contributions, maintain separate accounting for each beneficiary, and not allow investments to be directed by contributors and beneficiaries. A contributor may fund multiple accounts for the same beneficiary in different states, and an individual may be the designated beneficiary of multiple accounts.

The specifics of plans vary greatly from one state to another. Plan sponsors may establish restrictions that are not mandated either by the Code or federal regulation. There are no income caps on contributors, unlike the limits that generally apply to taxpayers who want to claim the other higher education benefits. Similarly, there is no annual limit on contributions, unlike the case with the Coverdell Education Savings Account (ESA).

Except in the case of the beneficiary's death, disability, attendance at a military academy, or receipt of a scholarship, veterans educational assistance allowance or other nontaxable payment for educational purposes (excluding a gift or inheritance), a 10% tax penalty is assessed on the earnings portion of distributions that exceed or are not used toward qualified higher education expenses. Nonqualified earnings withdrawals are taxable to the distributee as well. An account owner can avoid paying income tax and a penalty on nonqualified distributions by transferring the account to a new beneficiary who is a family member of the old beneficiary.

If a loss is incurred on funds invested in a QTP account, taxpayers may be able to take the loss on their returns. The loss can be taken only when all amounts in an account have been distributed and the total distribution is less than the unrecovered basis (i.e., total contributions to the account). The loss may be claimed as a miscellaneous itemized deduction on Schedule A, which is subject to the 2%-of-adjusted-gross-income limit.

In addition to QTPs, there are a variety of other tax benefits taxpayers (either the beneficiary or the account owner) may use to lower their income tax bill based on education expenses. Notably, taxpayers may be eligible to claim higher education tax credits or the tuition and fees deduction. A taxpayer cannot claim more than one of these tax benefits for the same student in a given year.

To determine if any of their QTP distribution is taxable, a taxpayer must reduce their QTP qualified higher education expenses by any amounts used to claim higher education tax credits. The qualified higher education expenses as defined for QTPs are not identical to the qualified higher education expenses of education tax credits. The qualified higher education expenses common to both QTPs and education tax credits are tuition and fees, and hence these are the expenses which taxpayers may (mistakenly) try to use to claim both an education tax credit and a tax-free OTP distribution.(Other expenses, like room and board which are a qualified expense for OTPs, are not a qualified expense for education tax credits and hence would not be used to claim an education tax credit.) Instead of an education tax credit, a taxpayer may choose to take both a 529 distribution and claim the tuition and fees deduction for the same student in the same year. Taxpayers who take a 529 distribution and also choose to claim the tuition and fees deduction must reduce the amount of expenses used for the tuition and fees deduction by the earnings portion of the 529 distribution (not the entire amount of the distribution).

Impact

The tax deferral and exclusion of earnings from income when used to pay qualified expenses benefits tax filing units according to their marginal tax rate (see Appendix A). The tax benefits of QTPs are more likely to accrue to higher income families because they have higher tax rates and the means to save for college.

In addition to the tax advantages of QTPs, these plans are also treated more favorably than other types of college savings or investments when determining a student's eligibility for federal need-based student aid. For instance, QTPs generally have a minimal impact on a student's federal expected family contribution (EFC). The EFC is the amount that, according to the federal need analysis methodology, can be contributed by a student and the student's family toward the student's cost of education. All else being equal, the higher a student's EFC, the lower the amount of federal student need-based aid he or she will receive. A variety of financial resources are reported by students and their families on the Free Application for Federal Student Aid (FAFSA). These resources are assessed at differing rates under the federal need analysis methodology.

Distributions from 529 plans are generally not considered income in the federal need analysis calculation and are therefore not reported on the FAFSA, although the value of the QTP is considered an asset in the federal need analysis methodology and should be reported on the FAFSA.

When calculating a student's EFC, the federal need analysis methodology considers a percentage of the student's assets and a percentage of the parents' assets reported on the FAFSA. A student's assets are assessed at a flat rate of 20%, while parents' assets are assessed on a sliding scale, resulting in a maximum effective rate of up to 5.64%. Therefore, the ownership of the asset is important when determining how it will affect a student's EFC. For students who are classified as dependent students for FAFSA purposes (which differs from the classification of dependent for tax purposes). OTPs are considered an asset of the parent, as long as the custodial ownership of the plan belongs either to the parent or student. Therefore, dependent students benefit from a lower assessment rate on QTPs, which, all else being equal, results in a lower EFC and the potential for more For students who are classified as federal need-based student aid. independent students for FAFSA purposes, QTPs are treated as an asset of the student, as long as the custodial ownership of the plan belongs either to the student or student's spouse (if applicable). QTPs that are owned by someone other than the student, parent, or spouse are not reported as an asset on the FAFSA, but distributions from these QTPs are reported as untaxed income for the beneficiary on the FAFSA. In general, income is assessed at a higher rate compared to assets in the federal need analysis methodology.

Rationale

QTPs have been established in response to widespread concern about the rising cost of college. The tax status of the first program, the Michigan Education Trust, was the subject of several federal court rulings that left major issues unresolved. Congress eventually clarified most questions in enacting section 529 as part of the Small Business Job Protection Act of 1996.

Assessment

The tax benefit can be justified as easing the financial burden of college expenses for families and encouraging savings for college. The benefits are generally limited to higher income individuals.

While prepaid QTPs were the first type of QTP established, savings plans have grown in popularity and are now the most common type of QTP. According to the most recent data, of the \$164.9 billion worth of assets in 529 plans at the end of 2011, 87.9% (\$144.9 billion) were held in savings plans, while 12.1% (\$20.0 billion) were held in prepaid plans.

Families have preferred college savings plans over prepaid tuition plans because the former potentially offer higher returns and because college savings plans, until recently, received more favorable treatment under some federal student aid programs. Despite a steep decline in stock prices and the increased awareness of the fees associated with plans sold by financial advisors in particular, college savings accounts remain the most popular type of 529 plan. (Broker-sold college savings plans impose investment fees in addition to the administrative and other fees charged by plans sold directly by the states.) While the changed treatment of prepaid tuition plans in the EFC calculation could entice more families to invest in them, they too have suffered from the poor performance of the stock market (in which the funds of prepaid plans typically are invested). In addition, the continuing rapid rise in college costs has prompted some states to change the terms of their prepaid tuition plans or to stop accepting contributions.

Selected Bibliography

Clancy, Margaret and Michael Sherraden. *The Potential for Inclusion in 529 Savings Plans: Report on a Survey of States*. Center for Social Development, Washington University. St. Louis, MO: December 2003.

Crandall-Hollick, Margot. Higher Education Tax Benefits: Brief Overview and Budgetary Effects. Congressional Research Service Report R41967. Washington, DC: September 25, 2012.

Crenshaw, Albert B. "Prepaid Tuition A Future Flunk-Out?," Washington Post, Nov. 14, 2004.

Dynarski, Susan M. "Tax Policy and Education Policy, Collision or Coordination? A Case Study of the 529 and Coverdell Saving Incentives," *Tax Policy and the Economy*, v. 18 (2004). pp. 81-115.

Dynarski, Susan M. "Who Benefits from the College Saving Incentives? Income, Educational Expectations and the Value of the 529 and Coverdell," *National Tax Journal*, v. 57, no. 2 (June 2004), pp. 359-383.

Dynarski, Susan M. "High-Income Families Benefits Most from New Education Savings Incentives," *Tax Policy Issues and Options*, no. 9 (February 2005), pp. 1-5.

Hurley, Joseph. The Best Way to Save for College: A Complete Guide to 529 Plans 2011-2012. Pittsford, NY: JFH Innovative LLC, 2011.

Investment Company Institute. *Profile of Households Saving for College*. Washington, DC: Fall 2003.

Gerzog, Wendy C. "College Savings Plans: Not Just for Education," *Tax Notes*, Mar. 9, 2009, pp. 1267-1270.

Joint Committee on Taxation. Background and Present Law Relating to Tax Benefits for Education. JCX-62-12. Washington, DC: July 23, 2012.

Levine, Linda. Saving for College Through Qualified Tuition (Section 529) Programs. Congressional Research Service Report RL31214. Washington, DC: updated September 13, 2010.

Lumina Foundation for Education. "When Saving Means Losing: Weighing the Benefits of College-savings Plans," New Agenda Series, July 2004.

Ma, Jennifer. "Education Savings Incentives and Household Saving: Evidence from the 2000 TIAA-CREF Survey of Participant Finances." Chapter in: College Choices: The Economics of Where to Go, When to Go, and How to Pay for It, pp. 169-206. National Bureau of Economic Research, Working Paper 9505. Cambridge, MA: 2004.

Ma, Jennifer. To Save or Not to Save: A Closer Look at Saving and Financial Aid. TIAA-CREF Institute, Working Paper 18-120103. NY, NY: December 2003.

Schenk, Deborah H. and Andrew L. Grossman. "The Failure of Tax Incentives for Education." N. Y. U. Tax Law Review, 61 (2007-2008), pp. 295-394.

Education, Training, Employment, and Social Services: Education and Training

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT STUDENT LOAN BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.3	0.1	0.4
2012	0.3	0.1	0.4
2013	0.4	0.1	0.5
2014	0.4	0.2	0.6
2015	0.5	0.2	0.7

Authorization

Sections 103, 141, 144(b), and 146.

Description

Student loan bonds are tax-exempt bonds issued by states to finance reduced rate student loans. Since July 1, 2010, students have had the option of borrowing directly from the U.S. Department of Education, a process that can compete with student loans financed with tax-exempt bonds issued by states. These tax-exempt bonds are subject to the private-activity bond annual volume cap and must compete for cap allocations with bond proposals for all other private activities subject to the volume cap. This tax expenditure represents the revenue loss from these bonds.

Before July 1, 2010, the federal government maintained several loan programs that were made through private lenders and were financed in part by tax-exempt debt. Part of this tax expenditure includes outstanding tax-exempt bonds issued for this purpose. These programs include Stafford Loans, PLUS Loans, and Consolidation Loans, which were made by private lenders under the Federal Family Education Loan (FFEL) Program. No further loans were made under the FFEL Program beginning July 1, 2010.

All new Stafford, PLUS, and Consolidation Loans will come directly from the department under the Direct Loan Program.

Impact

Since interest on the student loan bonds is tax exempt, purchasers are willing to accept lower pre-tax rates of interest than on taxable securities. The relatively low interest rate may increase the availability of student loans because states may be more willing to lend to more students. In 2011, \$6.7 billion of student loan bonds were issued. However, the interest rate paid by the students is not any lower since the rate is set by federal law. Student loan bonds also create a secondary market for student loans that compares favorably with the private sector counterpart in the secondary market for student loans.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and student borrowers, and for estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

Although the first student loan bonds were issued in the mid-1960s, few states used them in the next 10 years. The use of student loan bonds began growing rapidly in the late 1970s because of the combined effect of three pieces of legislation.

First, the Tax Reform Act of 1976 authorized nonprofit corporations established by state and local governments to issue tax-exempt bonds to acquire guaranteed student loans. It exempted the special allowance payment from tax-code provisions prohibiting arbitrage profits (borrowing at low interest rates and investing the proceeds in assets (e.g., student loans) paying higher interest rates). State authorities could use arbitrage earnings to make or purchase additional student loans or turn them over to the state government or a political subdivision. This provided incentives for state and local governments to establish more student loan authorities. State authorities could also offer discounting and other features private lenders could not because of the lower cost of tax-exempt debt financing.

Second, the Middle Income Student Assistance Act of 1978 made all students, regardless of family income, eligible for interest subsidies on their

loans, expanding the demand for loans by students from higher-income families.

Third, legislation in 1976 raised the ceiling on Special Allowance Payments (SAPs) and tied them to quarterly changes in the 91-day Treasury bill rate. The Higher Education Technical Amendments of 1979 removed the ceiling, making the program more attractive to commercial banks and other lenders, and increasing the supply of loans.

In 1980, when Congress became aware of the profitability of taxexempt student loan bond programs, it passed remedial legislation that reduced by one-half the special allowance rate paid on loans originating from the proceeds of tax-exempt bonds.

Subsequently, the Deficit Reduction Act of 1984 mandated a Congressional Budget Office study of the arbitrage treatment of student loan bonds, and required that Treasury enact regulations if Congress failed to respond to the study's recommendations.

Regulations were issued in 1989, effective in 1990, which required SAPs to be included in the calculation of arbitrage profits, and that restricted arbitrage profits to 2 percentage points in excess of the yield on the student loan bonds. The Tax Reform Act of 1986 allowed student loans to earn 18 months of arbitrage profits on unspent (not loaned) bond proceeds. This special provision expired one-and-a-half years after adoption, and student loans are now subject to the same six-month restriction on arbitrage earnings as other private-activity bonds.

The Health Care and Education Reconciliation Act of 2010 (HCERA, P.L. 111-152) ended loans made available through the Federal Family Education Loan (FFEL) after June 30, 2010. These loans included Stafford Loans, Unsubsidized Stafford Loans, PLUS Loans, and Consolidation Loans. Tax-exempt private activity bonds were often issued in conjunction with these state administered FFEL programs.

Assessment

The desirability of allowing these bonds to be eligible for tax-exempt status hinges on one's view of whether students should pay the full cost of their education, or whether sufficient social benefits exist to justify federal taxpayer subsidy. Students present high credit risk due to their uncertain earning prospects, their high mobility, and society's unwillingness to accept

human capital as loan collateral. This suggests there may be insufficient funds available for human, as opposed to physical, capital investments.

Even if a case can be made for subsidy for underinvestment in human capital, it is not clear that tax-exempt financing is necessary to correct the market failure. The presence of direct federal loans already addresses the problem. In addition, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, bonds issued for student loans have increased the financing costs of bonds issued for public capital stock, and have increased the supply of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Austin, D. Andrew. "Do Lower Lender Subsidies Reduce Guaranteed Student Loan Supply?," *Education Finance and Policy 5*, no. 2 (2010), pp. 138-176.

Lochner, Lance J., and Alexander Monge-Naranjo. "The Nature of Credit Constraints and Human Capital," *National Bureau of Economic Research*, NBER Woking Paper 13912, April 2008.

Maguire, Steven. *Private Activity Bonds: An Introduction.* Library of Congress, Congressional Research Service Report RL31457.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

Neubig, Tom. "The Needless Furor Over Tax-Exempt Student Loan Bonds," *Tax Notes*, April 2, 1984, pp. 93-96.

Oosterbeek, Hessel. "Innovative Ways to Finance Education and Their Relation to Lifelong Learning," *Education Economics*, v. 6, no. 3, (Dec. 1998), pp. 219-251.

Thomson-Rueters, The Bond Buyer 2012 Yearbook, SourceMedia, 2012.

U.S. Congress, Congressional Budget Office. Statement of Donald B. Marron before the Subcommittee on Select Revenue Measures, Committee on Ways and Means, U.S. House of Representatives. "Economic Issues in the Use of Tax-Preferred Bond Financing," March 16, 2006.

Whitaker, Stephen. "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity.* Washington: The Urban Institute Press, 1991.

—, and Barbara Miles. "Substituting Direct Government Lending for Guaranteed Student Loans: How Budget Rules Distorted Economic Decision Making," *National Tax Journal*, v. 47, no. 4 (December 1994), pp. 773-787.

Education, Training, Employment, and Social Services: Education and Training

EXCLUSION OF EMPLOYER-PROVIDED TUITION REDUCTION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	-	0.2
2012	0.2	-	0.2
2013	0.2	-	0.2
2014	0.2	-	0.2
2015	0.2	-	0.2

Authorization

Section 117(d).

Description

Tuition reductions for employees of educational institutions may be excluded from federal income taxes, provided they do not represent payment for services. The exclusion applies as well to tuition reductions for an employee's spouse and dependent children. Tuition reductions can occur at schools other than where the employee works, provided they are granted by the school attended, and not paid for by the employing school. Tuition reductions cannot discriminate in favor of highly compensated employees.

Impact

The exclusion of tuition reductions lowers the net cost of education for employees of educational institutions. When teachers and other school employees take reduced-tuition courses, the exclusion provides a tax benefit not available to other taxpayers unless their courses are job-related or included under an employer education assistance plan (Section 127). When

their spouse or children take reduced-tuition courses, the exclusion provides a unique benefit unavailable to other taxpayers.

Rationale

Language regarding tuition reductions was added by the Deficit Reduction Act of 1984 as part of legislation codifying and establishing boundaries for tax-free fringe benefits; similar provisions had existed in regulations since 1956.

Assessment

Tuition reductions are provided by education institutions to employees as a fringe benefit, which may reduce costs of labor and turnover. In addition, tuition reductions for graduate students providing research and teaching services for the educational institution also contribute to reducing the educational institution's labor costs. Both employees and graduate students may view the reduced tuition as a benefit of their employment that encourages education. The exclusion may serve to in effect pass some of the educational institutions' labor costs on to other taxpayers.

Selected Bibliography

U.S. Congress, Joint Committee on Taxation, General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, JCS-41-84, December 31, 1984.

Education, Training, Employment, and Social Services: Education and Training

EXCLUSION OF SCHOLARSHIP AND FELLOWSHIP INCOME

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	2.2	-	2.2
2012	2.4	-	2.4
2013	2.5	-	2.5
2014	2.7	-	2.7
2015	2.8	-	2.8

Authorization

Section 117.

Description

Scholarships and fellowships include awards based upon financial need (e.g., Pell Grants) as well as those based upon scholastic achievement or promise (e.g., National Merit Scholarships). In recent years, interest has arisen in utilizing scholarships to promote school choice at the elementary and secondary levels.

Scholarships and fellowships can be excluded from the gross income of students or their families provided: (1) the students are pursuing degrees (or are enrolled in a primary or secondary school); and (2) the amounts are used for tuition and fees required for enrollment or for books, supplies, fees, and equipment required for courses at an eligible educational institution. Eligible educational institutions maintain a regular teaching staff and curriculum and have a regularly enrolled student body attending classes where the school carries out its educational activities. Amounts used for room, board, and incidental expenses are not excluded from gross income.

Generally, amounts representing payment for services — teaching, research, or other activities — are not excludable, regardless of when the service is performed or whether it is required of all degree candidates. An exception to the rule went into effect for awards received after 2001 under the National Health Service Corps Scholarship Program and the Armed Forces Health Professions Scholarship and Financial Assistance Program. This temporary exception is scheduled to expire at the end of 2012.

Impact

The exclusion reduces the net cost of education for students who receive financial aid in the form of scholarships or fellowships. The potential benefit is greatest for students at schools where higher tuition charges increase the amount of scholarship or fellowship assistance that might be excluded. For students at institutions with lower tuition charges, the exclusion may apply only to a small portion of a scholarship or fellowship award since most of the award may cover room and board and other costs.

The effect of the exclusion may be negligible for students with little additional income: they could otherwise use their standard deduction or personal exemption to offset scholarship or fellowship income (though their personal exemption would be zero if their parents could claim them as dependents). On the other hand, the exclusion may result in a more substantial tax benefit for married postsecondary students who file joint returns with their employed spouses.

Rationale

Section 117 was enacted as part of the Internal Revenue Code of 1954 in order to clarify the tax status of grants to students; previously, they could be excluded only if it could be established that they were gifts. The statute has been amended a number of times. Prior to the Tax Reform Act of 1986, the exclusion was also available to individuals who were not candidates for a degree (though it was restricted to \$300 a month with a lifetime limit of 36 months), and teaching and other service requirements did not bar use of the exclusion, provided all candidates had such obligations. The exception to the rule relating to payments for services for awards received under the National Health Service Corps Scholarship Program and the Armed Forces Health Professions Scholarship and Financial Assistance Program was enacted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 and was originally in effect through 2010. The exception was extended through

2012 by the Tax Relief, Unemployment Insurance Reauthorization and Tax Relief Act of 2010.

Assessment

The exclusion of scholarship and fellowship income traditionally was justified on the grounds that the awards were analogous to gifts. With the development of grant programs based upon financial need, which today probably account for most awards, justification now rests upon the hardship that taxation would impose.

If the exclusion were abolished, awards could arguably be increased to cover students' additional tax liability, but the likely effect would be that fewer students would get assistance. Scholarships and fellowships are not the only educational subsidies that receive favorable tax treatment (e.g., government support of public colleges, which has the effect of lowering tuition, is not considered income to the students), and it might be inequitable to tax them without taxing the others.

The exclusion provides greater benefits to taxpayers with higher marginal tax rates. While students themselves generally have low (or even zero) marginal rates, they often are members of families subject to higher rates. Determining what ought to be the proper taxpaying unit for college students complicates assessment of the exclusion.

Selected Bibliography

Abramowicz, Kenneth F. "Taxation of Scholarship Income," *Tax Notes*, v. 60. November 8, 1993, pp. 717-725.

Crane, Charlotte. "Scholarships and the Federal Income Tax Base," *Harvard Journal on Legislation*, v. 28. Winter 1991, pp. 63-113.

Crandall-Hollick, Margot. Higher Education Tax Benefits: Brief Overview and Budgetary Effects. Congressional Research Service Report R41967. Washington, DC: September 25, 2012.

Dodge, Joseph M. "Scholarships under the Income Tax," *Tax Lawyer*, v. 46. Spring, 1993, pp. 697-754.

Evans, Richard, et al. "Knapp v. Commissioner of Internal Revenue: Tuition Assistance or Scholarship, a Question of Taxation," The Journal of College and University Law, v. 16. Spring 1990, pp. 699-712.

Hoeflich, Adam. "The Taxation of Athletic Scholarships: A Problem of Consistency," *University of Illinois Law Review*, 1991, pp. 581-617.

Joint Committee on Taxation. Background and Present Law Relating to Tax Benefits for Education. JCX-62-12. Washington, DC: July 23, 2012.

Kelly, Marci. "Financing Higher Education: Federal Income-Tax Consequences," *The Journal of College and University Law*, v. 17. Winter 1991, pp. 307-328.

Education, Training, Employment, and Social Services: Education and Training

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR PRIVATE NONPROFIT AND QUALIFIED PUBLIC EDUCATIONAL FACILITIES

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	2.2	0.9	3.1
2012	2.3	0.9	3.2
2013	2.8	0.9	3.7
2014	2.9	1.0	3.9
2015	3.0	1.0	4.0

Authorization

Section 103, 141, 142(k), 145, 146, and 501(c)(3).

Description

Interest income on state and local bonds used to finance the construction of nonprofit educational facilities (usually university and college facilities such as classrooms and dormitories) and qualified public educational facilities is tax exempt. These nonprofit organization bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or business rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Bonds issued for nonprofit educational facilities are not subject to the state volume cap on private activity bonds. This exclusion probably reflects the belief that the nonprofit bonds have a larger component of benefit to the general public than do many of the other private activities eligible for tax

exemption. The bonds are subject to a \$150 million cap on the amount of bonds any nonprofit institution (other than hospitals) can have outstanding.

Bonds issued for qualified public educational facilities are subject to a separate state-by-state cap: the greater of \$10 per capita or \$5 million annually.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to finance educational facilities at reduced interest rates. Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the nonprofit educational facilities, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

An early decision of the U.S. Supreme Court predating the enactment of the first federal income tax, *Dartmouth College v. Woodward* (17 U.S. 518 [1819]), confirmed the legality of government support for charitable organizations that provided services to the public. The income tax adopted in 1913, in conformance with this principle, exempted from taxation virtually the same organizations now included under Section 501(c)(3). In addition to their tax-exempt status, these institutions were permitted to receive the benefits of tax-exempt bonds under The Revenue and Expenditure Control Act of 1968. Almost all states have established public authorities to issue tax-exempt bonds for nonprofit educational facilities.

The interest exclusion for qualified public educational facilities was provided for in the Economic Growth and Tax Relief Reconciliation Act of 2001 and is intended to extend tax preferences to public school facilities which are owned by private, for-profit corporations. The school must have, however, a public-private agreement with the local educational authority. The private-activity bond status of these bonds subjects them to more severe restrictions in some areas, such as arbitrage rebate and advance refunding, than would apply if they were classified as traditional governmental school bonds. These provisions were extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010.

Assessment

Efforts have been made to reclassify nonprofit bonds as governmental bonds. Central to this issue is the extent to which nonprofit organizations are fulfilling their public purpose. Some argue that these entities are using their tax-exempt status to subsidize goods and services for groups that might receive more critical scrutiny if they were subsidized by direct federal expenditure.

As one of many categories of tax-exempt private-activity bonds, nonprofit educational facilities and public education bonds have increased the financing costs of bonds issued for more traditional public capital stock. In addition, this class of tax-exempt bonds has increased the supply of assets that individuals and corporations can use to shelter income from taxation.

Selected Bibliography

Congressional Budget Office and Joint Committee on Taxation, Subsidizing Infrastructure Investment with Tax-Preferred Bonds, Pub. No. 4005, October 2009.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

Plummer, Elizabeth. "The Effects of State Funding on Property Tax Rates and School Construction," *Economics of Education Review*, vol. 25, no. 5, October 2006.

Sherlock, Molly F., and Jane G. Gravelle, *An Overview of the Nonprofit and Charitable Sector*. Library of Congress, Congressional Research Service Report R40919.

U.S. Congress, Joint Committee on Taxation, General Explanation of Tax Legislation Enacted in the 107th Congress, Joint Committee Print JCS-1-03, January 24, 2003.

Weisbrod, Burton A. *The Nonprofit Economy*. Cambridge, MA: Harvard University Press, 1988.

Whitaker, Stephen, "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. "Nonprofit Organizations, Social Benefits, and Tax Policy," *National Tax Journal*. September 1991, pp. 341-349.

— . The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activities. Washington: The Urban Institute Press, 1991.

Education, Training, Employment, and Social Services: Education and Training

TAX CREDIT FOR HOLDERS OF QUALIFIED ZONE ACADEMY BONDS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	0.2	0.2
2012	0.1	0.2	0.3
2013	0.1	0.2	0.3
2014	0.1	0.2	0.3
2015	0.1	0.2	0.3

Authorization

Sections 54E and 1397E.

Description

Holders of qualified zone academy bonds (QZABs) can claim a credit equal to the dollar value of the bonds held multiplied by a credit rate determined by the Secretary of the Treasury. The credit rate is equal to the percentage that will permit the bonds to be issued without discount and without interest cost to the issuer. The maximum maturity of the bonds is that which will set the present value of the obligation to repay the principal equal to 50 percent of the face amount of the bond issue. The discount rate for the calculation is the average annual interest rate on tax-exempt bonds issued in the preceding month having a term of at least 10 years. The bonds must be purchased by a bank, an insurance company, or a corporation in the business of lending money.

In the 111th Congress, the American Recovery and Reinvestment Act (P.L. 111-5, ARRA) created a new type of tax credit bond, Build America Bonds (BABs, see the entry *Build America Bonds*), that allows issuers the option of receiving a direct payment from the U.S. Treasury instead of tax-

exempt interest payments or tax credits for investors. Later in the 111th, the Hiring Incentives to Restore Employment Act (P.L. 111-147) provided for a direct payment option for new QZABs.

A qualified zone academy must be a public school below the college level. It must be located in an Empowerment Zone or Enterprise Community, or have a student body whose eligibility rate for free or reduced-cost lunches is at least 35 percent. Ninety-five percent of bond proceeds must be used within five years to renovate capital facilities, provide equipment, develop course materials, or train personnel. The academy must operate a special academic program in cooperation with businesses, and private entities must contribute equipment, technical assistance, employee services, or other property worth at least 10 percent of bond proceeds. The limit for QZAB debt was \$400 million annually from 1998 through 2008, \$1.4 billion for each of 2009 and 2010, and \$400 million for 2011.

Impact

The interest income on bonds issued by state and local governments usually is excluded from federal income tax (see the entry *Exclusion of Interest on Public Purpose State and Local Debt*). Such bonds result in the federal government paying a portion (approximately 25 percent) of the issuer's interest costs. QZABs are structured to have the entire interest cost of the state or local government paid by the federal government in the form of a tax credit to the bond holders. QZABs are not tax-exempt bonds.

The cost has been capped at the value of federal tax credits generated by the cap on QZAB volume. If the school districts in any state do not use their annual allotment, the unused capacity can be carried forward for up to two years.

Rationale

The Taxpayer Relief Act of 1997 created QZABs. Some low-income school districts were finding it difficult to pass bond referenda to finance new schools or to rehabilitate existing schools. Increasing the size of the existing subsidy provided by tax-exempt bonds from partial to 100 percent federal payment of interest costs was expected to make school investments less expensive and therefore more attractive to taxpayers in these districts. The tax provision is also intended to encourage public/private partnerships, and eligibility depends in part on a school district's ability to attract private contributions that have a present value equal to at least 10 percent of the

value of the bond proceeds. P.L. 109-432 extended QZAB's for two years (for 2006 and 2007), introduced the five-year spending horizon, and applied arbitrage rules. P.L. 110-343 extended the QZAB with \$400 million for each of 2008 and 2009. The limit for QZAB debt was \$400 million annually from 1998 through 2008 and was \$1.4 billion for each of 2009 and 2010. The new limits for 2009 and 2010 were provided in P.L. 111-5 (ARRA). The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act (P.L. 111-312) extended QZAB through 2011 with a \$400 million limit.

Assessment

One way to think of this alternative subsidy is that financial institutions can be induced to purchase these bonds if they receive the same after-tax return from the credit that they would from the purchase of tax-exempt bonds. The value of the credit is included in taxable income, but is used to reduce regular or alternative minimum tax liability. Assuming the taxpayer is subject to the regular corporate income tax, the credit rate should equal the ratio of the purchaser's forgone market interest rate on tax-exempt bonds divided by one minus the corporate tax rate. For example, if the tax-exempt interest rate is 6 percent and the corporate tax rate is 35 percent, the credit rate would be equal to .06/(1-.35), or about 9.2 percent. Thus, a financial institution purchasing a \$1,000 zone academy bond would receive a \$92 tax credit for each year it holds the bond.

With QZABs, the federal government pays 100 percent of interest costs; tax-exempt bonds that are used for financing other public facilities finance only a portion of interest costs. For example, if the taxable rate is 8 percent and the tax-exempt rate is 6 percent, the non-QZAB bond receives a subsidy equal to two percentage points of the total interest cost, the difference between 8 percent and 6 percent. The zone academy bond receives a subsidy equal to all eight percentage points of the interest cost. Thus, this provision reduces the price of investing in schools compared to investing in other public services provided by a governmental unit, and other things equal should cause some reallocation of the unit's budget toward schools. In addition, the entire subsidy (the cost to the federal taxpayer) is received by the issuing government if the direct payment option is chosen, unlike tax-exempt bonds.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," National Bureau of Economic Research, working paper 16008, May 2010.

Collinson, Dale S. and Hannah Burke. "Tax Credit Bonds and the Taxable Bond Option—A Growing Force in Municipal Finance," Journal of Taxation of Financial Products, vol. 8, no. 2, April 2009.

Congressional Budget Office. Tax Credit Bonds and the Federal Cost Financing Public Expenditures, July 2004.

Congressional Budget Office and Joint Committee on Taxation. Subsidizing Infrastructure Investment with Tax-Preferred Bonds, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," *Proceedings of the 91st Annual Conference on Taxation*, National Tax Association.

Joint Committee on Taxation. Present Law and Issues Related to Infrastructure Finance, Joint Committee Print JCX-83-08, October 29, 2008.

Joint Committee on Taxation. Present Law and Background Related to State and Local Government Bonds, Joint Committee Print JCX-14-06, March 16, 2006.

Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, pp. 40-41.

Maguire, Steven. Tax Credit Bonds: A Brief Explanation. Library of Congress, Congressional Research Service Report RS20606.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

Matheson, Thornton. "Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2007, pp. 155-162.

Matheson, Thornton. "Qualified Zone Academy Bond Tax Credit Usage: 2005," Statistics of Income Bulletin, Internal Revenue Service, Spring 2009, pp. 106-109.

Education, Training, Employment, and Social Services: Education and Training

TAX CREDIT FOR HOLDERS OR ISSUERS OF QUALIFIED SCHOOL CONSTRUCTION BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.5	0.1	0.6
2012	0.7	0.1	0.8
2013	1.0	0.1	1.1
2014	1.2	0.1	1.3
2015	1.4	0.1	1.5

Authorization

Sections 54A and 54F.

Description

Holders of qualified school construction bonds (QSCBs) can claim a credit equal to the dollar value of the bonds held multiplied by a credit rate determined by the Secretary of the Treasury. The credit rate is equal to the percentage that will permit the bonds to be issued without discount and without interest cost to the issuer and is roughly equivalent to the interest rate on a taxable 10-year bond. The maximum maturity of the bonds is that which will set the present value of the obligation to repay the principal equal to 50 percent of the face amount of the bond issue.

There is a second option for issuers of QSCBs. In the 111th Congress, the American Recovery and Reinvestment Act (P.L. 111-5, ARRA) created a new type of tax credit bond, Build America Bonds (BABs, see the entry *Build America Bonds*), that allows issuers the option of receiving a direct payment from the U.S. Treasury instead of tax-exempt interest payments or tax credits for investors. Later in the 111th, the *Hiring Incentives to Restore*

Employment Act (P.L. 111-147) provided for a direct payment option, like that for BABs, for new QSCBs.

QSCBs had a national limit of \$11 billion in each of 2009 and 2010. An additional \$200 million in each of 2009 and 2010 was allocated to Indian schools. The bonds generally are allocated to states according to each state's share of Title 1 Basic Grants (Section 1124 of the Elementary and Secondary Education Act of 1965; 20 U.S.C. 6333, BG). The District of Columbia and the possessions of the United States are considered states for QSCBs. The possessions other than Puerto Rico (American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and U.S. Virgin Islands), however, are allocated an amount on the basis of the possession's population with income below the poverty line as a portion of the entire U.S. population with income below the poverty line. As of September 2012, QSCB issuance was over \$15.2 billion.

Nationally, 40 percent of the bond volume (\$4.4 billion) is dedicated to large Local Education Agencies (LEAs). A "large" LEA is defined as one of the 100 largest based on the number of "children aged 5 though 17 from families living below the poverty level." Also, one of up to 25 additional LEAs can be chosen by the Secretary if the LEA is "...in particular need of assistance, based on a low level of resources for school construction, high level of enrollment growth, or such other factors as the Secretary deems appropriate." Each large LEA, as defined above, would receive an allocation based on the LEA's share of the total Title I basic grants directed to large LEAs. The state allocation is reduced by the amount dedicated to any large LEAs in the state, and unused allocations can be carried forward.

Impact

The impact of QSCBs on new school construction has been significant given the relatively substantial interest rate subsidy. As of September 2012, QSCBs issuance had exceeded \$15.2 billion. Generally, the interest income on bonds issued by state and local governments for school construction is excluded from federal income tax (see the entry Exclusion of Interest on Public Purpose State and Local Debt). Such bonds result in the federal government paying a portion (approximately 25 percent) of the issuer's interest costs. In contrast, QSCBs are structured to have the federal government pay almost the entire interest cost of the state or local government in the form of a federal tax credit to the bond holders or the bond issuers.

Ultimately, however, the impact of QSCBs depends on how responsive school districts are to the reduced interest cost for school construction. Because QSCBs are relatively new, the impact of the tax expenditure for the bonds is uncertain. The \$15.2 billion of school construction with QSCBs may have occurred even without the QSCB program, though the size of the interest rate subsidy would seem to have had some stimulative effect on school construction.

Rationale

As noted earlier, the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) created QSCBs. These bonds offered a subsidy much larger than that provided by tax-exempt bonds. The federal payment of most interest costs was expected to make school investments less expensive and therefore more attractive to taxpayers in all school districts. Many observers note that the underinvestment in public school infrastructure adversely affects education outcomes. Proponents also cite the possible stimulative effect of additional public infrastructure spending arising from this program during the economic downturn in 2009 and 2010.

Assessment

For issuers, QSCBs are best assessed against the most common alternative mechanism for financing school construction: tax-exempt bonds. With QSCBs, the federal government pays almost all of the interest costs. In contrast, tax-exempt bonds that finance the construction of schools as well as other public facilities provide a subsidy for only a portion of interest costs. For example, if the taxable rate is 7 percent and the tax-exempt rate is 5 percent, the tax-exempt bond issuer receives a subsidy equal to two percentage points of the total interest cost, the difference between 7 percent and 5 percent. The QSCB issuer receives a subsidy equal to all seven percentage points of the interest cost. Almost the entire subsidy (the cost to the federal taxpayer) is received by the QSCB-issuing government. There is a clear incentive for issuers to use QSCBs over tax-exempt bonds, and the QSCB subsidy should be roughly the same with either the investor credit or direct-payment option.

Investors, in contrast to issuers, do not share the same clear incentive to purchase QSCBs. Investors can be induced to purchase these bonds if they receive at least the same after-tax return from the credit as that from the tax-exempt bonds or other taxable instruments of similar risk. When QSCBs are evaluated against tax-exempt bonds, the credit rate should equal the ratio of

the investor's forgone market interest rate on tax-exempt bonds divided by one minus the regular tax rate. Thus, investors in higher tax marginal income tax brackets would need a higher credit rate to equate the return on QSCBs to that of tax-exempt bonds. The uniform credit rate across jurisdictions would seem to limit the attractiveness of QSCBs to high-income tax investors.

When compared to other taxable investments of similar risk, the QSCBs may be at a disadvantage given the relatively unique structure and limited supply of the bonds. In particular, jurisdictions generally perceived as higher risk may need to increase the attractiveness of QSCBs to investors with financial enhancements such as bond insurance. These enhancements would reduce the benefit to the issuing jurisdictions.

In theory, if the demand for these bonds exceeds that of traditional taxexempt bonds issued for the same purpose, then interest costs for the issuer could be further reduced. Also, if the credit rate is set such that the bonds are more attractive relative to other taxable instruments, issuers may realize an additional interest cost savings. The savings from issuing QSCBs may lead to more investment in school construction.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhan Xing. "Build America Bonds," National Bureau of Economic Research, working paper 16008, May 2010.

Collinson, Dale S., and Hannah Burke. "Tax Credit Bonds and the Taxable Bond Option—A Growing Force in Municipal Finance," *Journal of Taxation of Financial Products*, vol. 8, no. 2, April 2009.

Congressional Budget Office, Tax Credit Bonds and the Federal Cost Financing Public Expenditures, July 2004.

Congressional Budget Office and Joint Committee on Taxation, Subsidizing Infrastructure Investment with Tax-Preferred Bonds, pub. no. 4005, October 2009.

Davie, Bruce. "Tax Credit Bonds for Education: New Financial Instruments and New Prospects," *Proceedings of the 91st Annual Conference on Taxation*, National Tax Association.

Joint Committee on Taxation. Present Law and Issues Related to Infrastructure Finance, Joint Committee Print JCX-83-08, October 29, 2008.

Joint Committee on Taxation. Present Law and Background Related to State and Local Government Bonds, Joint Committee Print JCX-14-06, March 16, 2006.

Joint Committee on Taxation. *General Explanation of Tax Legislation Enacted in 1997*, Joint Committee Print JCS-23-97, December 17, 1997, pp. 40-41.

Maguire, Steven. Tax Credit Bonds: A Brief Explanation. Library of Congress, Congressional Research Service Report RS20606.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.

Matheson, Thornton. "Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2007, pp. 155-162.

Matheson, Thornton. "Qualified Zone Academy Bond Tax Credit Usage: 2005," *Statistics of Income Bulletin*, Internal Revenue Service, Spring 2009, pp. 106-109.

Education, Training, Employment and Social Services: Education and Training

EXCLUSION OF INCOME ATTRIBUTABLE TO THE DISCHARGE OF CERTAIN STUDENT LOAN DEBT AND NHSC EDUCATIONAL LOAN REPAYMENTS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	•••	0.1
2012	0.1	-	0.1
2013	0.1	-	0.1
2014	0.1	-	0.1
2015	0.1	-	0.1

Authorization

Section 108(f); 20 U.S.C. § 1087ee(a)(5); and 42 U.S.C. § 2541-1(g)(3).

Description

In general, cancelled or forgiven debt, or debt that is repaid on the borrower's behalf is included as gross income for purposes of taxation under § 61(a)(12) of the IRC. However, § 108(f) provides that in certain instances, student loan cancellation and student loan repayment assistance may be excluded from gross income.

Cancelled or forgiven student loan debt may be excluded from gross income under § 108(f) if the relevant student loan was made by specified types of lenders; borrowed to assist an individual in attending an educational organization described in § 170(b)(1)(A)(ii); and contains terms providing that some or all of the loan will be cancelled for work for a specified period of time, in certain professions or occupations, and for any of a broad class of employers. Specified lenders are the government (federal, state, local, or an instrumentality, agency, or subdivision thereof); tax-exempt public benefit corporations that have assumed control of a state, county, or municipal

hospital and whose employees are considered public employees under state law; and educational organizations if the loan is made under an agreement with an entity described above, or under a program of the organization designed to encourage students to serve in occupations or areas with unmet needs and under the direction of a governmental entity or a tax-exempt § 501(c)(3) organization.

Student loans may be broadly categorized as either federal student loans or non-federal student loans. The major federal student loan programs are the William D. Ford Federal Direct Loan (DL) program, the Federal Perkins Loan program, and the Federal Family Education Loan (FFEL) program, although, loans are no longer being made under the FFEL program. Student loans made under each of these programs contain terms that provide that if borrowers work for specified periods of time in certain professions, for certain broad classes of employers, all or a portion of their debt will be cancelled or forgiven. Examples include teacher loan forgiveness under the FFEL and DL programs, loan forgiveness for public service employees under the DL program, and loan cancellation for public service under the Federal Perkins Loan program. In addition, some non-federal loans may be made with terms that meet the requirements of § 108(f) — for example, certain law school loan repayment assistance programs.

Federal student loans are made by different types of lenders. DL program loans are made directly by the federal government and thus, when forgiven for work in certain professions or occupations, the forgiven debt may be excluded from gross income. FFEL program loans are guaranteed by the federal government, but were made by a variety of lenders, including commercial banks, nonprofit entities, and state entities. While many FFEL program lenders were not among the types specified in § 108(f), the Department of the Treasury has determined that because of the government's role in guaranteeing FFEL program loans and in discharging borrowers' debt, as a matter of subrogation, these loans can reasonably be viewed as being made by the government. Thus, when FFEL program loans are forgiven for work in certain professions or occupations, the forgiven debt may be excluded from taxation. Perkins Loans are made by the public, nonprofit, or for-profit postsecondary institutions that borrowers attend. The statute authorizing the Federal Perkins Loan program specifies that any part

¹² Eric Solomon, Assistant Secretary for Tax Policy, Department of the Treasury, "Letter to Honorable Sander Levin on the income tax treatment of student loans forgiven under the Higher Education Act," (Sep. 19, 2008).

of a Federal Perkins Loan cancelled for certain types of public service shall not be considered income for purposes of the IRC (20 U.S.C. § 1087ee(a)(5)).

Individuals may refinance existing student loans borrowed from any lender by obtaining new loans made by an educational or other tax-exempt organization for purposes of participating in a public service program of that organization designed to encourage borrowers to serve in occupations or areas with unmet needs and in which the services performed are under the direction of a governmental entity or a tax-exempt § 501(c)(3) organization. If borrowers refinance their loans in this way and qualify for loan forgiveness or repayment, amounts forgiven or repaid are excluded from gross income.

An exclusion from gross income is also provided under § 108(f) for assistance provided under certain student loan repayment and loan forgiveness programs for health professionals. The National Health Service Corps (NHSC) Loan Repayment Program and state programs eligible to receive funds under the Public Health Service Act provide payment on a borrower's behalf for principal, interest, and related expenses of educational loans in return for the borrower's service in a health professional shortage area. The Patient Protection and Affordable Care Act (PPACA; P.L. 111-148) extended the exclusion from gross income to apply to state loan repayment and loan forgiveness programs designed to facilitate the increased availability of health care services in underserved or health professional shortage areas beginning with tax year 2009.

Impact

Section 108(f) permits individuals to exclude cancelled or forgiven student loan debt, payments made on their behalf under the NHSC, and state loan repayment programs from their gross income. The benefit provided to any individual taxpayer and the corresponding loss of revenue to the federal government depends on the taxpayer's marginal tax rate. The extent to which individuals choose to finance the costs of their education by initially borrowing from or refinancing through specified types of lenders, and subsequently choose to enter certain professions (e.g., public service, occupations with unmet need), because of available loan forgiveness or repayment programs and the favorable tax treatment of forgiven debt is not known.

Rationale

Whether to include the forgiveness of student loan debt or the repayment of debt through loan repayment assistance programs as part of gross income for purposes of taxation has been a policy issue for the past half century. Following the Supreme Court's decision in Bingler v. Johnson (1969), the primary issue in determining whether loan forgiveness and loan repayment programs are taxable has been whether there exists a quid pro quo between the recipient and the lender. Generally, if borrowers must perform service for the entity forgiving or repaying their loans, it is assumed that a quid pro quo exists and so the amount forgiven or repaid is treated as taxable income. The policy issue is whether the service borrowers provide in return for the discharge of their loan is for the benefit of the grantor of debt forgiveness and thus should be considered akin to income, or if the service is for the benefit of the broader society and thus should potentially be excluded from income. Following IRS rulings made subsequent to Bingler v. Johnson that had established the discharge of student loan indebtedness as taxable income. Congress has periodically amended the IRC to override these rulings and to specifically exclude the discharge of broader categories of certain student loan debt from taxation. As a result, the IRC currently provides tax treatment for qualified loan forgiveness and loan repayment programs similar to the treatment of educational grants and scholarships, which, generally, are not taxable.

Assessment

The value to an individual of excluding the discharge of student loan indebtedness from gross income depends on that individual's marginal tax rate in the tax year in which the benefit is realized. Beneficiaries are required to have served in certain types of professions or occupations, including occupations with unmet need, or that are in locations with unmet needs. Examples of programs include federal and other programs (e.g., law school loan repayment assistance programs) that provide loan cancellation or repayment for employment as teachers, in public service jobs, in areas of national need, and in health professional shortage areas. In many instances, borrowers employed in these types of professions may be in lower tax brackets than if they had taken higher paying jobs elsewhere.

Section 108(f) was made applicable to payments received through the NHSC Loan Repayment Program under P.L. 108-357. Previously, the program provided loan repayment recipients with an additional payment for tax liability equal to 39% of the loan repayment amount (42 U.S.C.

2541-1(g)(3)). By excluding NHSC loan repayment from income, tax relief is now provided through forgone revenue as opposed to discretionary outlays.

Selected Bibliography

Beck, Richard C.E., "Loan Repayment Assistance Programs for Public-Interest Lawyers: Why Does Everyone Think They Are Taxable?" *New York Law School Law Review*, vol. 40, (1996): 251-310.

Bingler v. Johnson, 394 U.S. 741 (1969).

Boe, Caroleen C., "Cancelled Student Loans: For the Benefit of the Grantor?" Albany Law Review, vol. 39, (1974): 35-51.

Dauthtrey, Zoel, and Frank M. Messina, "Medical Student Loans: Making Repayments Tax Free," *The CPA Journal*, (Jan. 1999).

Internal Revenue Service, Revenue Ruling 73-256, State Medical Education Loan Scholarship Program, 1973-1 CB 56, (Jan. 01, 1973)

Philipps, J. Timothy, and Timothy G. Hatfield, "Uncle Sam Gets the Goldmine — Students Get the Shaft: Federal Tax Treatment of Student Loan Indebtedness," *Seton Hall Legislative Journal*, vol. 15, (1991): 249-296.

Moloney v. Commissioner of Internal Revenue, United States Tax Court, Summary Opinion 2006-53.

Oliver, Amy J., "Improving the Tax Code to Provide Meaningful and Effective Tax Incentives for Higher Education," *University of Florida Journal of Law & Public Policy*, vol. 12, (2000): 91-145.

Smole, David P., Campus-Based Student Financial Aid Programs Under the Higher Education Act, Library of Congress, Congressional Research Service, Washington, D.C., (2010).

Smole, David P., Federal Student Loans Made Under the Federal Family Education Loan Program and the William D. Ford Federal Direct Loan Program: Terms and Conditions for Borrowers, Congressional Research Service, Washington, D.C., (2010).

Education, Training, Employment, and Social Services: Education and Training

DEDUCTION FOR CHARITABLE CONTRIBUTIONS TO EDUCATIONAL INSTITUTIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	5.0	0.3	5.3
2012	5.4	0.3	5.7
2013	6.3	0.3	6.6
2014	7.0	0.3	7.3
2015	7.2	0.3	7.5

Note: Additional costs of charitable contributions due to extenders are discussed in "Deduction for charitable contributions other than for education and health."

Authorization

Section 170 and 642(c).

Description

Subject to certain limitations, charitable contributions may be deducted by individuals, corporations, and estates and trusts. The contributions must be made to specific types of organizations, including scientific, literary, or educational organizations.

Individuals who itemize may deduct qualified contribution amounts of up to 50 percent of their adjusted gross income (AGI) and up to 30 percent for gifts of capital gain property. For contributions to nonoperating foundations and organizations, deductibility is limited to the lesser of 30 percent of the taxpayer's contribution base, or the excess of 50 percent of the contribution base for the tax year over the amount of contributions which qualified for the 50-percent deduction ceiling (including carryovers from previous years). Gifts of capital gain property to these organizations are limited to 20 percent of AGI.

The maximum amount deductible by a corporation is 10 percent of its adjusted taxable income. Adjusted taxable income is defined to mean taxable income with regard to the charitable contribution deduction, dividends-received deduction, any net operating loss carryback, and any capital loss carryback. Excess contributions may be carried forward for five years. Amounts carried forward are used on a first-in, first-out basis after the deduction for the current year's charitable gifts have been taken. Typically, a deduction is allowed only in the year in which the contribution occurs. However, an accrual-basis corporation is allowed to claim a deduction in the year preceding payment if its board of directors authorizes a charitable gift during the year and payment is scheduled by the 15th day of the third month of the next tax year.

If a contribution is made in the form of property, the deduction depends on the type of taxpayer (i.e., individual, corporate, etc.), recipient, and purpose.

As a result of the enactment of the American Jobs Creation Act of 2004, P.L. 108-357, donors of noncash charitable contributions face increased reporting requirements. For charitable donations of property valued at \$5,000 or more, donors must obtain a qualified appraisal of the donated property. For donated property valued in excess of \$500,000, the appraisal must be attached to the donor's tax return. Deductions for donations of patents and other intellectual property are limited to the lesser of the taxpayer's basis in the donated property or the property's fair market value. Taxpayers can claim additional deductions in years following the donation based on the income the donated property provides to the donee. The 2004 act also mandated additional reporting requirements for charitable organizations receiving vehicle donations from individuals claiming a tax deduction for the contribution, if it is valued in excess of \$500.

Taxpayers are required to obtain written substantiation from a donee organization for contributions that exceed \$250. This substantiation must be received no later than the date the donor-taxpayer files the required income tax return. Donee organizations are obligated to furnish the written acknowledgment when requested with sufficient information to substantiate the taxpayer's deductible contribution.

The Pension Protection Act of 2006 (P.L. 109-280) included several provisions that temporarily expand charitable giving incentives. The provisions, effective after December 31, 2005 and before January 1, 2008, include enhancements to laws governing non-cash gifts and tax-free

distributions from individual retirement plans for charitable purposes. The 2006 law also tightened rules governing charitable giving in certain areas, including gifts of taxidermy, contributions of clothing and household items, contributions of fractional interests in tangible personal property, and record-keeping and substantiation requirements for certain charitable contributions. Temporary incentives were extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008 and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312).

Impact

The deduction for charitable contributions reduces the net cost of contributing. In effect, the federal government provides the donor with a corresponding grant that increases in value with the donor's marginal tax bracket. Those individuals who use the standard deduction or who pay no taxes receive no benefit from the provision.

A limitation applies to the itemized deductions of high-income taxpayers after 2012, whereby itemized deductions are reduced by 3 percent of the amount by which a taxpayer's adjusted gross income (AGI) exceeds an inflation adjusted dollar amount (\$166,800 in 2009). This limitation was phased out and eventually eliminated by the 2001 tax cut. This tax reduction was extended through 2012, but after that year the phaseout will again be in effect, absent legislative change.

The table below provides the distribution of all charitable contributions, not just those to educational organizations. In general, contributions to educational organizations are more concentrated in the higher income categories (along with contributions to health and the arts), as compared to contributions for religion, combined purpose charities, and charities to meet basic needs.

Distribution by Income Class of the Tax Expenditure
for Charitable Contributions, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	0.0
\$20 to \$30	0.2
\$30 to \$40	0.5
\$40 to \$50	0.9
\$50 to \$75	4.9
\$75 to \$100	6.9
\$100 to \$200	28.2
\$200 and over	58.4

Before the 2004 enactment, donors could deduct the fair market value of donations of intellectual property. The new restrictions may result in fewer such donations to universities and other qualified institutions. The need to account for any increased income attributable to the donation might involve more work for recipient institutions.

Rationale

This deduction was added by passage of the War Revenue Act of October 3, 1917. Senator Hollis, the sponsor, argued that high wartime tax rates would absorb the surplus funds of wealthy taxpayers, which were generally contributed to charitable organizations.

It was also argued that many colleges would lose students to the military, and that charitable gifts were needed by educational institutions. Thus, the original rationale shows a concern for educational organizations. The deduction was extended to estates and trusts in 1918 and to corporations in 1935.

The provisions enacted in 2004 resulted from Internal Revenue Service and congressional concerns that taxpayers were claiming inflated charitable deductions, causing significant federal revenue loss. In the case of patent and other intellectual property donations, the IRS expressed concern not only about overvaluation of property, but also whether consideration was received

in return for the donation and whether only a partial interest, rather than full interest, of property was being transferred. The 2006 enactments were, in part, a result of continued concerns from 2004. The 2006 legislation also provided for some temporary additional benefits which are part of the "extenders," and were further extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). At the same time, the 2006 law imposed some additional restrictions including gifts of taxidermy, contributions of clothing and household items, contributions of fractional interests in tangible personal property, and established record-keeping and substantiation requirements for certain charitable contributions. It also added restrictions on donor advised funds (where sponsors receive contributions and then make donations advised by the original contributor) and certain supporting organizations (organizations that receive donations used to support other active charities).

Assessment

Most economists agree that education produces substantial "spillover" effects benefitting society in general. Examples include a more efficient workforce, lower unemployment rates, lower welfare costs, and less crime. An educated electorate fosters a more responsive and effective government. Since these benefits accrue to society at large, they argue in favor of the government actively promoting education.

Further, proponents argue that the federal government would be forced to assume some activities now provided by educational organizations if the deduction were eliminated. However, public spending might not be available to make up all the difference. Also, many believe that the best method of allocating general welfare resources is through a dual system of private philanthropic giving and governmental allocation.

Economists have generally held that the deductibility of charitable contributions provides an incentive effect which varies with the marginal tax rate of the giver. There are a number of studies which find significant behavioral responses, although a study by Randolph suggests that such measured responses may largely reflect transitory timing effects. Most recent estimates indicate that the induced giving is less than the revenue cost.

Types of contributions may vary substantially among income classes. For example, contributions to religious organizations are far more

concentrated at the lower end of the income scale than contributions to educational institutions. More highly valued contributions, like intellectual property and patents, tend to be made by corporations to educational institutions.

It has been estimated by the American Association of Fund-Raising Counsel Trust for Philanthropy, Inc. that giving to public and private colleges, universities, elementary schools, secondary schools, libraries, and to special scholarship funds, nonprofit trade schools, and other educational facilities amounted to \$40.01 billion in calendar year 2009.

Opponents say that helping educational organizations may not be the best way to spend government money. Opponents further claim that the present system allows wealthy taxpayers to indulge special interests (such as gifts to their alma maters). It is generally argued that the charitable contributions deduction is difficult to administer and adds complexity to the tax code.

Selected Bibliography

Ackerman, Deena, and Gerald Auten, "Tax Expenditures for Noncash Charitable Contributions," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, v. 64, Pt. 2, June 2011, pp. 651-688.

Aprill, Ellen P. "Churches, Politics, and the Charitable Contribution Deduction," *Boston College Law Review*, v. 4, July 2001, pp. 843-873.

Arnone, Michael. "Congress Approves Lower Tax Benefits for Donations of Intellectual Property," *Chronicle of Higher Education*, v. 51, iss. 9, October 22, 2004, p. A36.

Auten, Gerald E., Sieg Holger, and Charles T. Clotfelter, "Charitable Giving, Income and Taxes: An Analysis of Panel Data," *American Economic Review*, v. 92, March 2002, pp. 371-382.

Bakija, Jon. "Distinguishing Transitory and Permanent Price Elasticities of Charitable Giving with Pre-Announced Changes in the Tax Law," October 2000, Mimeo.

Bakija, Jon and Bradley T. Heim. "How Does Charitable Giving Respond to Incentives and Income? New Estimates from Panel Data," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, v. 64, Pt. 2, June 2011, pp. 615-650.

Bakija, Jon and Rob McClelland, "Timing vs. Long-Run Charitable Giving Behavior: Reconciling Divergent Approaches and Estimates," December 2004.

Boatsman, James R. and Sanjay Gupta, "Taxes and Corporate Charity: Empirical Evidence from Micro-Level Panel Data," *National Tax Journal*, v. 49, June 1996, pp. 193-213.

Bradley, Ralph, Steven Holder, and Robert McClelland, "A Robust Estimation of the Effect of Taxes on Charitable Contributions," *Contemporary Economic Policy*, v. 23, October 2005, pp. 545-554.

Broman, Amy J. "Statutory Tax Rate Reform and Charitable Contributions: Evidence from a Recent Period of Reform," *Journal of the American Taxation Association*, v. 11, fall 1989, pp. 7-21.

Giving USA 2010, The Annual Report on Philanthropy for the Year 2009, The Center on Philanthropy At Indiana University. Indiana University-Purdue University, Indianapolis: 2010.

Buckles, Johnny Rex. "The Case for the Taxpaying Good Samaritan: Deducting Earmarked Transfers to Charity Under Federal Income Tax Law, Theory and Policy," *Fordham Law Review*, v. 70, March 2002, pp. 1243-1339.

"Bush Signs Corporate Tax Legislation Restricting Donations of Intellectual Property," *Higher Education and National Affairs*, October 27, 2004.

Center on Philanthropy, The 2008 Study of High Net Worth Philanthropy, Sponsored by Bank of America, Indiana University-Purdue University, Indianapolis, March 2009.

— Patterns of Household Charitable Giving by Income Group, 2005, prepared for Google, Indiana University, Summer 2007.

Clotfelter, Charles T. "The Impact of Tax Reform on Charitable Giving: A 1989 Perspective." In *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, edited by Joel Slemrod, Cambridge, MA: MIT Press, 1990.

— . "The Impact of Fundamental Tax Reform on Nonprofit Organizations." In *Economic Effects of Fundamental Tax Reform*, eds. Henry J. Aaron and William G. Gale. Washington, DC: Brookings Institution Press, 1996, pp. 211-246.

Colombo, John D. "The Marketing of Philanthropy and the Charitable Contributions Deduction: Integrating Theories for the Deduction and Tax Exemption," *Wake Forest Law Review*, v. 36, Fall 2001, pp. 657-703.

Crimm, Nina J. "An Explanation of the Federal Income Tax Exemption for Charitable Organizations: A Theory of Risk Compensation," *Florida Law Review*, v. 50, July 1998, pp. 419-462.

Eckel, Catherine C. and Philip J. Grossman, "Subsidizing Charitable Contributions: A Natural Field Experiment," *Experimental Economics*, v. 11, March 2008, pp. 234-252.

Feenberg, Daniel. "Are Tax Price Models Really Identified: The Case of Charitable Giving," *National Tax Journal*, v. 40, December 1987), pp. 629-633.

Feldman, Naomi. "Time is Money: Choosing Between Charitable Activities," *American Economic Journal: Economic Policy*, v. 2, no. 1, 2010, pp. 103-130.

Feldman, Naomi and James Hines, Jr. "Tax Credits and Charitable Contributions in Michigan," University of Michigan, Working Paper, October 2003.

Fisher, Linda A. "Donor-Advised Funds: The Alternative to Private Foundations," *Cleveland Bar Journal*, v. 72, July/August 2001, pp. 16-17.

Gravelle, Jane. Economic Analysis of the Charitable Contribution Deduction for Nonitemizers, Library of Congress Congressional Research Service Report RL31108, April 29, 2005.

Gravelle, Jane and Donald Marples, Charitable Contributions: The Itemized Deduction Cap and Other FY2011 Budget Options, Library of Congress, Congressional Research Service Report R40518, March 18, 2010.

Gravelle, Jane G. and Molly Sherlock, An Analysis of Charitable Giving and Donor Advised Funds, Library of Congress, Congressional Research Service Report R45957, July 11, 2012.

— . Tax Issues Relating to Charitable Contributions and Organizations, Library of Congress, Congressional Research Service Report RL34608, July 11, 2012.

Green, Pamela and Robert McClelland. "Taxes and Charitable Giving," *National Tax Journal*, v. 54, September 2001, pp. 433-450.

Hasselback, James R. and Rodney L. Clark. "Colleges, Commerciality, and the Unrelated Business Income Tax." *Taxes*, v. 74, May 1996, pp. 335-342.

Jones, Darryll K. "When Charity Aids Tax Shelters," Florida Tax Review, v. 4, 2001, pp. 770-830.

Joulfaian, David and Mark Rider. "Errors-In-Variables and Estimated Income and Price Elasticities of Charitable Giving," *National Tax Journal*, v. 57, March 2004, pp. 25-43.

Kahn, Jefferey H. "Personal Deductions: A Tax "Ideal" or Just Another "Deal"?," Law Review of Michigan State University, v. 2002, Spring 2002, pp. 1-55.

Lankford, R. Hamilton and James H. Wyckoff. "Modeling Charitable Giving Using a Box-Cox Standard Tobit Model," *Review of Economics and Statistics*, v. 73, August 1991, pp. 460-470.

Liddell, Pearson and Janette Wilson, "Individual Noncash Contributions, 2008," (2011), SOI Bulletin, winter 2011.

Lipp, Troy. and Bridgette Crawford, "Donating to College Athletics: A Taxing Gesture of Kindness," *Tax Notes*, October 10. 2011, pp. 229-234.

Karlan, Dean and John A. List, 2007. "Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment," *American Economic Review*, Vol. 97, December 2007, pp. 1774-1793.

Omer, Thomas C. "Near Zero Taxable Income Reporting by Nonprofit Organizations," *Journal of American Taxation Association*, v. 25, fall 2003, pp. 19-34.

Randolph, William C. "Charitable Deductions," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

— . "Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions," *Journal of Political Economy*, v. 103, August 1995, pp. 709-738.

Rondeau, Daniel and John A. List, Matching and Challenge Gifts to Charity: Evidence from Laboratory and Natural Field Experiments, National Bureau of Economic Research Working Paper 13728, January 2008.

Rose-Ackerman, Susan. "Altruism, Nonprofits, and Economic Theory," *Journal of Economic Literature*, v. 34, June 1996, pp. 701-728.

Sherlock, Molly and Jane Gravelle, *An Overview of the Charitable and Nonprofit Sector*, Library of Congress, Congressional Research Service Report R40919, November 17, 2009.

Stokeld, Fred, "ETI Repeal Bill Would Tighten Rules on Vehicle, Patent Donations," *Tax Notes*, October 18, 2004, pp. 293-294.

"Tax Exempt Educational Organizations," *Journal of Law and Education*, v. 15. summer 1986, pp. 341-346.

Teitell, Conrad. "Tax Primer on Charitable Giving," *Trust & Estates*, v. 139, June 2000, pp. 7-16.

Tiehen, Laura. "Tax Policy and Charitable Contributions of Money," *National Tax Journal*, v. 54, December 2001, pp. 707-723.

Tobin, Philip T. "Donor Advised Funds: A Value-Added Tool for Financial Advisors," *Journal of Practical Estate Planning*, v. 3, October/November 2001, pp. 26-35, 52.

- U.S. Congress, Congressional Budget Office. *Budget Options*. See Rev-12, Limit Deductions for Charitable Giving to the Amount Exceeding 2 Percent of Adjusted Gross Income. Washington, DC: Government Printing Office, February 2005, p 281.
- U.S. Congress, General Accounting Office. Vehicle Donations: Benefits to Charities and Donors, but Limited Program Oversight, GAO Report GAO-04-73, Washington, DC: U.S. General Accounting Office. November 2003, pp. 1-44.
- . Vehicle Donations: Taxpayer Considerations When Donating Vehicles to Charities, GAO Report GAO-03-608T, Washington, DC: U.S. General Accounting Office. April 2003, pp. 1-15.
- U.S. Congress, Joint Committee on Taxation, *Technical Explanation Of H.R. 4, The "Pension Protection Act Of 2006,"* as Passed by the House on July 28, 2006, and as Considered by the Senate on August 3, 2006, JCX-38-06, Washington, DC: U.S. Government Printing Office, August 3, 2006, pp. 1-386.
- . Senate Committee on Finance. Staff Discussion Draft: Proposals for Reforms and Best Practices in the Area of Tax-Exempt Organizations, Washington, DC, June 22, 2004, pp. 1-19.

- U.S. Department of Treasury. "Charitable Giving Problems and Best Practices," Testimony Given by Mark Everson, Commissioner of Internal Revenue, Internal Revenue Service, IR-2004-81, June 22, 2004, pp. 1-17.
- . Report to Congress on Supporting Organizations and Donor Advised Funds December 2011.

Wittenbach, James L. and Ken Milani. "Charting the Interacting Provisions of the Charitable Contributions Deductions for Individuals," *Taxation of Exempts*, v. 13, July/August 2001, pp. 9-22.

—, "Charting the Provisions of the Charitable Contribution Deduction for Corporations," *Taxation of Exempts*, v. 13, November/December 2001, pp. 125-130.

Yetman, Michelle H. and Robert J. Yetman. "The Effect of Nonprofits' Taxable Activities on the Supply of Private Donations," *National Tax Journal*, v. 56, March 2003, pp. 243-258.

Zimmerman, Dennis. "Nonprofit Organizations, Social Benefits, and Tax Policy." *National Tax Journal*, v. 44, September 1991, pp. 341-349.

Education, Training, Employment, and Social Services: Education and Training

EXCLUSION OF EMPLOYER-PROVIDED EDUCATION ASSISTANCE BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.9	-	0.9
2012	0.9	-	0.9
2013	0.9	-	0.9
2014	1.0	-	1.0
2015	1.0	_	1.0

Authorization

Section 127.

Description

An employee may exclude from gross income amounts paid by the employer for educational assistance (tuition, fees, books, supplies, etc.) pursuant to a written qualified educational assistance program. The annual limit is \$5,250. Any excess is includable in the employee's gross income and is subject to both employment and income taxes. Amounts that exceed the limit may be excludable if they meet the working condition fringe benefits provision of Code Section 132.

Courses do not have to be job related. Those involving sports, games, or hobbies are covered only if they involve the employer's business, however. Courses can help employees meet minimum requirements for current work or prepare for a new career. Graduate education undertaken after December 31, 2001 and before January 1, 2013 is covered, absent congressional action.

The employer may make qualified assistance payments directly, by reimbursement to the employee, or may directly provide the education. The plan may not discriminate in favor of highly compensated employees. One requirement is that no more than 5% of the total amount paid out during the year may be paid to or for employees who are shareholders or owners of at least 5% of the business. The employer must maintain records and file a plan return.

Impact

The exclusion of these benefit payments encourages employers to offer educational assistance to employees. Availability of the benefit varies across firms, depending upon such things as industry and employer size. Availability also varies within firms, depending upon the number of hours an employee works and their level of earnings for example. The U.S. Bureau of Labor Statistics stopped reporting the percent of employees in the private sector with access to employer-provided educational assistance in 2008. In that year, one-half of private sector employees had access to work-related educational assistance while only 15 percent had access to nonwork-related educational assistance as part of their fringe benefit package. Generally, employees in management, professional, and related occupations; in full-time jobs; who belong to labor unions; with average wages in the top half of the earnings distribution; and work at large firms (100 or more employees) are more likely to have educational assistance benefits made available to them by their firms.

The exclusion allows certain employees, who otherwise might be unable to do so, to continue their education. The value of the exclusion is dependent upon the amount of educational expenses furnished and the marginal tax rate.

Rationale

Section 127 was added to the law by the passage of the Revenue Act of 1978, effective through 1983. Prior to enactment, the treatment of employer-provided educational assistance was complex, with a case-by-case determination of whether the employee could deduct the assistance as job-related education.

Since its inception, the provision was reauthorized ten times. It first was extended from the end of 1983 through 1985 by the Education Assistance Programs. The Tax Reform Act of 1986 next extended it through 1987, and

raised the maximum excludable assistance from \$5,000 to \$5,250. The Technical and Miscellaneous Revenue Act of 1988 reauthorized the exclusion retroactively to January 1, 1989 and extended it through September 30, 1990. The Revenue Reconciliation Act of 1990 then extended it through December 31, 1991, and the Tax Extension Act of 1991, through June 30, 1992. The Omnibus Reconciliation Act of 1993 reauthorized the provision retroactively and through December 31, 1994; the Small Business Job Protection Act re-enacted it to run from January 1, 1995 through May 31, 1997. The Taxpayer Relief Act of 1997 subsequently extended the exclusion — but only for undergraduate education — with respect to courses beginning before June 1, 2000. The Ticket to Work and Work Incentives Improvement Act of 1999 extended the exclusion through December 31, 2001. With passage of the Economic Growth and Tax Relief Reconciliation Act of 2001, the exclusion was reauthorized to include graduate education undertaken through December 31, 2010. The act also extended the existing rules for employer provided education assistance benefits until January 1, 2011. Congressional committee reports indicate that the latest extension was designed to lessen the complexity of the tax law and was intended to result in fewer disputes between taxpavers and the Internal Revenue Service. The 2001 provisions were extended an additional two years, through 2012, by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312).

Assessment

The availability of employer educational assistance encourages employer investment in human capital, which may be inadequate in a market economy because of spillover effects (i.e., the benefits of the investment extend beyond the individuals undertaking additional education and the employers for whom they work). Because all employers do not provide educational assistance, however, taxpayers with similar incomes are not treated equally.

Selected Bibliography

Black, Sandra and Lisa M. Lynch. "Human-Capital Investments and Productivity," *AEA Papers and Proceedings*, v. 86 (May 1996), pp. 263-267.

Cappelli, Peter. Why Do Employers Pay for College?. National Bureau of Economic Research. Working Paper 9225. Cambridge, MA: September 2002.

Crandall-Hollick, Margot. *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*. Congressional Research Service Report R41967. Washington, DC: September 25, 2012.

Hudson, Lisa with Rajika Bhandari, Katharin Peter, and David B. Bills. Labor Force Participation in Formal Work-Related Education in 2000-01. U.S. Department of Education, National Center for Education Statistics. Washington, DC: September 2005.

Levine, Linda. Tax Treatment of Employer Education Assistance for the Benefit of Employees. Congressional Research Service Report RS22911. Washington, DC: September 8, 2010.

Luscombe, Mark A. "Employer Educational Assistance Programs: Can the Frustration of Lapses in Statutory Authority Be Avoided?" *Taxes*, v. 74 (April 1996), pp. 266-268.

National Association of Independent Colleges and Universities. *Who Benefits from Section 127?* Society for Human Resource Management. Alexandria, VA: 2010.

Phillips, Lawrence C. and Thomas R. Robinson. "Financial Planning for Education Expenditures." *The CPA Journal*, v. 72, no 4, (April 2002), pp. 34-39.

Richter, Wolfram E. "Efficiency Effects of Tax Deductions for Work-Related Expenses." Journal of International Tax and Public Finance. v. 13 (2006), pp. 685-699.

Selingo, Jeffrey. "Adult Education: The End of the Magic Carpet Ride?," *Washington Post*, November 9, 2003, p. W43.

U.S. General Accounting Office. *Tax Expenditures: Information on Employer-Provided Educational Assistance*, GAO/GGD-97-28. Washington, DC:December 1996.

Education, Training, Employment, and Social Services: Employment

SPECIAL TAX PROVISIONS FOR EMPLOYEE STOCK OWNERSHIP PLANS (ESOPS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	0.9	1.1
2012	0.2	1.0	1.2
2013	0.2	1.0	1.2
2014	0.2	1.1	1.3
2015	0.2	1.2	1.4

Authorization

Sections 401(a)(28), 404(a)(9), 404(k), 415(c)(6), 1042, 4975(e)(7), 4978, 4979A.

Description

An employee stock ownership plan (ESOP) is a defined-contribution plan that is required to invest primarily in the stock of the sponsoring employer. ESOPs are unique among employee benefit plans in their ability to borrow money to buy stock. An ESOP that has borrowed money to buy stock is a leveraged ESOP. An ESOP that acquires stock through direct employer contributions of cash or stock is a nonleveraged ESOP.

ESOPs are provided with various tax advantages. Employer contributions to an ESOP may be deducted by the employer as a business expense. Contributions to a leveraged ESOP are subject to less restrictive limits than contributions to other qualified employee benefit plans.

An employer may deduct dividends paid on stock held by an ESOP if the dividends are paid to plan participants, if the dividends are used to repay a loan that was used to buy the stock, or for dividends paid on stock in a retirement plan. The deduction for dividends used to repay a loan is limited to dividends paid on stock acquired with that loan. Employees are not taxed on employer contributions to an ESOP or the earnings on invested funds until they are distributed.

A stockholder in a closely held company may defer recognition of the gain from the sale of stock to an ESOP if, after the sale, the ESOP owns at least 30 percent of the company's stock and the seller reinvests the proceeds from the sale of the stock in a U.S. company.

To qualify for these tax advantages, an ESOP must meet the minimum requirements established in the Internal Revenue Code. Many of these requirements are general requirements that apply to all qualified employee benefit plans. Other requirements apply specifically to ESOPs.

In particular, ESOP participants must be allowed voting rights on stock allocated to their accounts. In the case of publicly traded stock, full voting rights must be passed through to participants. For stock in closely held companies, voting rights must be passed through on all major corporate issues.

Closely held companies must give employees the right to sell distributions of stock to the employer (a put option), at a share price determined by an independent appraiser. An ESOP must allow participants who are approaching retirement to diversify the investment of funds in their accounts.

Impact

The various ESOP tax incentives encourage employee ownership of stock through a qualified employee benefit plan and provide employers with a tax-favored means of financing. The deferral of recognition of the gain from the sale of stock to an ESOP encourages the owners of closely held companies to sell stock to the company's employees. The deduction for dividends paid to ESOP participants encourages the current distribution of dividends.

Various incentives encourage the creation of leveraged ESOPs. Compared to conventional debt financing, both the interest and principal on an ESOP loan are tax-deductible. The deduction for dividends used to make payments on an ESOP loan and the unrestricted deduction for contributions to pay interest encourage employers to repay an ESOP loan more quickly.

According to an analysis of information returns filed with the Internal Revenue Service, most ESOPs are in private companies, and most ESOPs have fewer than 100 participants. But most ESOP participants are employed by public companies and belong to plans with 100 or more participants. Likewise, most ESOP assets are held by plans in public companies and by plans with 100 or more participants.

Rationale

The tax incentives for ESOPs are intended to broaden stock ownership, provide employees with a source of retirement income, and grant employers a tax-favored means of financing.

The Employee Retirement Income Security Act of 1974 (P.L. 93-406) allowed employers to form leveraged ESOPs. The Tax Reduction Act of 1975 established a tax-credit ESOP (called a TRASOP) that allowed employers an additional investment tax credit of one percentage point if they contributed an amount equal to the credit to an ESOP.

The Tax Reform Act of 1976 allowed employers an increased investment tax credit of one-half a percentage point if they contributed an equal amount to an ESOP and the additional contribution was matched by employee contributions.

The Revenue Act of 1978 required ESOPs in publicly traded corporations to provide participants with full voting rights, and required closely held companies to provide employees with voting rights on major corporate issues. The Act required closely held companies to give workers a put option on distributions of stock.

The Economic Recovery Tax Act of 1981 (P.L. 97-34) replaced the investment-based tax credit ESOP with a tax credit based on payroll (called a PAYSOP). The 1981 Act also allowed employers to deduct contributions of up to 25 percent of compensation to pay the principal on an ESOP loan. Contributions used to pay interest on an ESOP loan were excluded from the 25-percent limit.

The Deficit Reduction Act of 1984 (P.L. 98-369) allowed corporations a deduction for dividends on stock held by an ESOP if the dividends were paid to participants. The Act also allowed lenders to exclude from their income 50 percent of the interest they received on loans to an ESOP.

The Act allowed a stockholder in a closely held company to defer recognition of the gain from the sale of stock to an ESOP if the ESOP held at least 30 percent of the company's stock and the owner reinvested the proceeds from the sale in a U.S. company. The Act permitted an ESOP to assume a decedent's estate tax in return for employer stock of equal value.

The Tax Reform Act of 1986 repealed the tax credit ESOP. The Act also extended the deduction for dividends to include dividends used to repay an ESOP loan. The Act permitted an estate to exclude from taxation up to 50 percent of the proceeds from the sale of stock to an ESOP. The Act allowed persons approaching retirement to diversify the investment of assets in their accounts.

The Omnibus Budget Reconciliation Act of 1989 limited the 50-percent interest exclusion to loans made to ESOPs that hold more than 50 percent of a company's stock. The deduction for dividends used to repay an ESOP loan was restricted to dividends paid on shares acquired with that loan. The Act repealed both estate tax provisions: the exclusion allowed an estate for the sale of stock to an ESOP and the provision allowing an ESOP to assume a decedent's estate tax. The Small Business Job Protection Act of 1996 eliminated the provision that allowed a 50 percent interest income exclusion for bank loans to ESOPs. The Economic Growth and Recovery Tax Act of 2001 allowed firms to deduct dividends on stock held in retirement plans.

Assessment

One of the major objectives of ESOPs is to expand employee stock ownership. These plans are believed to motivate employees by more closely aligning their financial interests with the financial interests of their employers. The distribution of stock ownership in ESOP firms is broader than the distribution of stock ownership in the general population.

Some evidence suggests that among firms with ESOPs there is a greater increase in productivity if employees are involved in corporate decision-making. But employee ownership of stock is not a prerequisite for employee participation in decision-making.

ESOPs do not provide participants with the traditional rights of stock ownership. Full vesting depends on a participant's length of service, and distributions are generally deferred until a participant separates from service. To provide participants with the full rights of ownership would be consistent

with the goal of broader stock ownership, but employees would be able to use employer contributions for reasons other than retirement.

The requirement that ESOPs invest primarily in the stock of the sponsoring employer is consistent with the goal of corporate financing, but it may not be consistent with the goal of providing employees with retirement income. The cost of such a lack of diversification was demonstrated with the failure of Enron and other firms whose employees' retirement plans were heavily invested in company stock. If a firm experiences financial difficulties, the value of its stock and its dividend payments will fall. Furthermore, employee-ownership firms do fail with not only the consequent loss of jobs but also the employees' ownership stakes. Because an ESOP is a defined-contribution plan, participants bear the burden of this risk. The partial diversification requirement for employees approaching retirement was enacted in response to this issue.

A leveraged ESOP allows an employer to raise capital to invest in new plant and equipment. But evidence suggests that the majority of leveraged ESOPs involve a change in ownership of a company's stock, and not a net increase in investment.

Although the deduction for dividends used to repay an ESOP loan may encourage an employer to repay a loan more quickly, it may also encourage an employer to substitute dividends for other loan payments.

Because a leveraged ESOP allows an employer to place a large block of stock in friendly hands, leveraged ESOPs have been used to prevent hostile takeovers. In these cases, the main objective is not to broaden employee stock ownership.

ESOPs have been used in combination with other employee benefit plans. A number of employers have adopted plans that combine an ESOP with a 401(k) salary reduction plan. Some employers have combined an ESOP with a 401(h) plan to fund retiree medical benefits.

Selected Bibliography

Anderson, Sean M. "Risky Retirement Business: How ESOPs Harm the Workers They Are Supposed to Help," *Loyola University Chicago Law Journal*, v. 41, no. 1, Fall 2009, pp. 1-37.

Blasi, Joseph R. *Employee Ownership: Revolution or Ripoff?* Cambridge, MA: Ballinger, 1988.

Blasi, Joseph, Douglas Kruse, and Aaron Berstein. *In the Company of Others*, New York: Basic Books, 2003.

Blinder, Alan S., ed. *Paying for Productivity: A Look at the Evidence*. Washington, DC: The Brookings Institution, 1990.

Chaplinsky, Susan and Greg Niehaus. "The Role of ESOPs in Takeover Contests," *The Journal of Finance*, v. 49, n. 4, September 1994, pp. 1451-1470.

Conte, Michael A., and Helen H. Lawrence. "Trends in ESOPs," *Trends in Pensions 1992*, John A. Turner and Daniel J. Beller, eds., Washington, DC: U.S. Government Printing Office, 1992, pp. 135-148.

Gamble, John E. "ESOPs: Financial Performance and Federal Tax Incentives," *Journal of Labor Research*, v. 19, Summer 1998, pp. 529-541.

Gravelle, Jane G., *Employer Stock in Pension Plans: Economic and Tax Issues*, U.S. Library of Congress, Congressional Research Service Report RL31551, Washongton, DC: September 4, 2002.

— . "The Enron Debate: Lessons for Tax Policy." Urban-Brookings Tax Policy Center Discussion Paper 6, Washington, DC: The Urban Institute, February 2003.

Kruse, Douglas, Richard Freeman, Joseph Blasi, Robert Buchele, and Adria Scharf. "Motivating Employee-Owners in ESOP Firms: Human Resource Policies and Company Performance," in *Employee Participation, Firm Performance and Survival, Advances in the Economic Analysis of Participatory and Labor-Managed Firms*, v. 8, Virginie Perotin and Andrew Robinson, eds., Amsterdam: Elsevier, 2004.

Mayer, Gerald. "Employee Stock Ownership Plans," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds., Washington, DC: Urban Institute Press, 2005.

Snyder, Todd S. *Employee Stock Ownership Plans (ESOPs): Legislative History*. U.S. Library of Congress, Congressional Research Service Report RS21526. Washington, DC: May 20, 2003.

Stumpff, Andrew, and Norman Stein. "Repeal Tax Incentives for ESOPs," *Tax Notes*, October 19, 2009, pp. 337-340.

- U.S. General Accounting Office. Employee Stock Ownership Plans: Benefits and Costs of ESOP Tax Incentives for Broadening Stock Ownership, PEMD-87-8. Washington, DC: General Accounting Office, December 29, 1986.
- . Employee Stock Ownership Plans: Little Evidence of Effects on Corporate Performance, PEMD-88-1. Washington, DC: General Accounting Office, October 29, 1987.

Education, Training, Employment and Social Services: Employment

EXCLUSION OF EMPLOYEE AWARDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.3	-	0.3
2012	0.3	-	0.3
2013	0.3	-	0.3
2014	0.3	-	0.3
2015	0.3	-	0.3

Authorization

Sections 74(c), 274(j).

Description

Generally, prizes and awards to employees that do not qualify as a de minimis fringe benefit under Section 132(e) are taxable to the employee. Section 74(c), however, provides an exclusion for certain awards of tangible personal property given to employees for length of service or for safety achievement.

The amount of the exclusion (under subsection 74(c)) for the employee is the value of the property awarded, and is generally limited by the employer's deduction for the award (under Section 274(j)) — \$400, or up to \$1,600 for awards granted as part of qualified employee achievement award plans. Qualified employee achievement plans are established or written employer programs which do not discriminate in favor of highly compensated employees. In addition, the average cost per recipient of all awards granted under all established plans for an employer cannot exceed \$400.

For employees of non-profit employers, the amount of the exclusion is the amount that would have been allowed if the employer were taxable (non-profit organizations are generally not subject to federal income taxes) - \$400, and up to \$1,600 if the non-profit employer has a qualified employee achievement award plan.

Generally, the limitation on the exclusion for the employee is the cost to (and deduction for) the employer related to the award. If however both the cost to the employer for the award and the fair market value of the award exceed the limitation, the employee must include the excess (fair market value minus the limitation) in gross income.

Length of service awards which qualify for the exclusion (and the employer deduction of cost), cannot be awarded to an employee in the first five years of service, or to an employee who has received a length of service award (other than an award excluded as a de minimis fringe benefit under Section 132(e)) in that year or any of the prior four years of service. Awards for safety achievement (other than an award excluded as a de minimis fringe benefit under Section 132(e)) which qualify for the exclusion (and the employer deduction of cost) cannot be awarded to a manager, administrator, clerical employee, or other professional employee. In addition, awards for safety achievement cannot have been awarded, in that year, to more than 10% of employees.

The amount of an eligible employee award which is excluded from gross income is also excluded under the Federal Insurance Contributions Act (FICA) for Social Security and Medicare taxes (Old Age, Survivors and Disability tax and Hospital tax).

Impact

Sections 74(c) and 274(j) exclude from gross income certain employee awards of tangible personal property for length of service and safety achievement that would otherwise be taxable.

Rationale

The exclusion for certain employee awards was adopted in the Tax Reform Act of 1986. Prior to that Act, with exceptions that were complex and difficult to interpret, awards received by employees generally were taxable.

Assessment

The exclusion recognizes a traditional business practice which may have social benefits. The combination of the limitation on the exclusion as to eligibility for qualifying awards, and the dollar amount of the exclusion not being increased since 1986, keep the exclusion from becoming a vehicle for significant tax avoidance. However, the lack of an increase in the exclusion effectively reduces the tax-free portion of some awards.

Selected Bibliography

CCH Incorporated, "Not All Prizes are Taxable," Workforce, suppl. Workforce Extra (April 1999), p. 1.

Linda H. Kistler and Anne M. Koen, "Tax Reform and Employee Benefits: Analysis and Implications," *Employee Benefits Journal*, December 1985, pp. 5-11.

Daniel Shaviro, "A Case Study for Tax Reformers: The Taxation of Employee Awards and Other Business Gifts," *Virginia Tax Review*, vol. 4, no. 2 (Winter 1985), pp. 241-286.

- U.S. Congress, Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1986, joint committee print, 100th Cong., 1st sess., May 4, 1987, JCS-10-87. (Washington, DC: GPO, 1987), pp. 30-38.
- U.S. Department of the Treasury, Internal Revenue Service, *Employer's Tax Guide to Fringe Benefits*, Publication 15-B, December 7, 2011 (see "Achievement Awards" on p. 8).
- , Internal Revenue Service, Federal State and Local Governments (FSLG). *Taxable Fringe Benefit Guide*, January 2012.

Leonard Weld, "Nontaxable Fringe Benefits," *The Tax Adviser*, August 1995, pp. 494-502.

Education, Training, Employment, and Social Services: Employment

EXCLUSION OF EMPLOYEE MEALS AND LODGING (OTHER THAN MILITARY)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.1	-	1.1
2012	1.1	-	1.1
2013	1.2	-	1.2
2014	1.2	-	1.2
2015	1.3	-	1.3

Authorization

Sections 119 and 132(e)(2).

Description

Employees do not include in income the fair market value of meals furnished by employers if the meals are furnished on the employer's business premises and for the convenience of the employer.

The fair market value of meals provided to an employee at a subsidized eating facility operated by the employer is also excluded from income, if the facility is located on or near the employer's business, and if revenue from the facility equals or exceeds operating costs. In the case of highly compensated employees, certain nondiscrimination requirements are met to obtain this second exclusion.

Section 119 also excludes from an employee's gross income the fair market value of lodging provided by the employer, if the lodging is furnished on business premises for the convenience of the employer, and if the employee is required to accept the lodging as a condition of employment.

Impact

Exclusion from taxation of meals and lodging furnished by an employer provides a subsidy to employment in those occupations or sectors in which such arrangements are common. Live-in housekeepers or apartment resident managers, for instance, may frequently receive lodging and/or meals from their employers. The subsidy provides benefits both to the employees (more are employed and they receive higher compensation) and to their employers (who receive the employees' services at lower cost).

Rationale

The convenience-of-the-employer exclusion now set forth in section 119 generally has been reflected in income tax regulations since 1918, presumably in recognition of the fact that in some cases, the fair market value of employer-provided meals and lodging may be difficult to measure.

The specific statutory language in section 119 was adopted in the 1954 Code to clarify the tax status of such benefits by more precisely defining the conditions under which meals and lodging would be treated as tax free.

In enacting the limited exclusion for certain employer-provided eating facilities in the 1984 Act, the Congress recognized that the benefits provided to a particular employee who eats regularly at such a facility might not qualify as a *de minimis* fringe benefit absent another specific statutory exclusion. The record-keeping difficulties involved in identifying which employees ate what meals on particular days, as well as the values and costs for each such meal, led the Congress to conclude that an exclusion should be provided for subsidized eating facilities as defined in section 132(e)(2).

Assessment

The exclusion subsidizes employment in those occupations or sectors in which the provision of meals and/or lodging is common. Both the employees and their employers benefit from the tax exclusion. Under normal market circumstances, more people are employed in these positions than would otherwise be the case and they receive higher compensation (after tax). Their employers receive their services at lower cost. Both sides of the transaction benefit because the loss is imposed on the U.S. Treasury in the form of lower tax collections.

Because the exclusion applies to practices common only in a few occupations or sectors, it introduces inequities in tax treatment among different employees and employers.

While some tax benefits are conferred specifically for the purpose of providing a subsidy, this one ostensibly was provided for administrative reasons (based on the difficulty in determining their fair market value), and the benefits to employers and employees are side effects. Some observers challenge the argument that administrative problems are an adequate rationale for excluding employer-provided meals and lodging. They note that a value is placed on these services under some federal and many state welfare programs.

Selected Bibliography

Avery Katz, and Gregory Mankiw, "How Should Fringe Benefits Be Taxed?" *National Tax Journal*, vol. 38, no. 1 (March 1985), pp. 37-46.

Kenneth J. Kies, "Analysis of the New Rules Governing the Taxation of Fringe Benefits," *Tax Notes*. September 3, 1984, pp. 981-988.

Jonathan Keith Layne, "Cash Meal Allowances Are Includible in Gross Income and Are Not Excludible Under I.R.C. Section 119 as That Section Permits an Exclusion Only for Meals Furnished in Kind," *Emory Law Review*. Summer 1978, pp. 791-814.

Burgess J. W. Raby and William L. Raby. "Will Work for Food!': Room Meals, and 'Convenience of the Employer," *Tax Notes*, Vol. 100, July 14, 2003, pp. 203-205.

Emil M. Sunley, Jr., "Employee Benefits and Transfer Payments," *Comprehensive Income Taxation*, ed. Joseph A. Pechman. Washington, DC: The Brookings Institution, 1977, pp. 90-92.

Robert Turner, "Fringe Benefits." in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel. and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

- U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984.* Committee Print, 98th Congress, 2nd session. December 31, 1984, pp. 858-859.
- U.S. Department of the Treasury, Internal Revenue Service. *Employer's Tax Guide to Fringe Benefits*, Publication 15-B, December 7, 2011 (see "Achievement Awards" on p. 8).
- , Internal Revenue Service, Federal State and Local Governments (FSLG). *Taxable Fringe Benefit Guide*. January 2012.

Education, Training, Employment, and Social Services: Employment

DEFERRAL OF TAXATION ON SPREAD ON ACQUISITION OF STOCK UNDER INCENTIVE STOCK OPTION PLANS AND EMPLOYEE STOCK PURCHASE PLANS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.3	-1.1	-0.8
2012	0.3	-1.2	-0.9
2013	0.3	-1.2	-0.9
2014	0.3	-1.3	-1.0
2015	0.4	-1.3	-0.9

Authorization

Sections 422-423.

Description

Qualified (or "statutory") options include "incentive stock options," which are limited to \$100,000 a year for any one employee, and "employee stock purchase plans," which are limited to \$25,000 a year for any employee. Employee stock purchase plans must be offered to all full-time employees with at least two years of service; incentive stock options may be confined to officers and highly paid employees. Qualified options are not taxed to the employee when granted or exercised (under the regular tax); tax is imposed only when the stock is sold. If the stock is held one year from purchase and two years from the granting of the option, the gain is taxed as a long-term capital gain. The employer is not allowed a deduction for these options, which requires the employer to pay higher income taxes. However, if the stock is not held the required time, the employee is taxed at ordinary income tax rates and the employer is allowed a deduction. The value of incentive

stock options is included in minimum taxable income for the alternative minimum income tax in the year of exercise.

Impact

Both types of qualified stock options provide employees with tax benefit under current law. The employee recognizes no income (for regular tax purposes) when the options are granted or when they are exercised. Taxes (under the regular tax) are not imposed until the stock purchased by the employee is sold. If the stock is sold after it has been held for at least two years from the date the option was granted and one year from the date it was exercised, the difference between the market price of the stock when the option was exercised and the price for which it was sold is taxed at long-term capital gains rates. If the option price was less than 100% of the fair market value of the stock when it was granted, the difference between the exercise price and the market price (the discount) is taxed as ordinary income (when the stock is sold). Taxpayers with above average or high incomes are the primary beneficiaries of these tax advantages. Because employers (usually corporations) cannot deduct the cost of stock options eligible for the lower tax rate on long-term capital gains, employers pay higher income taxes. The prevailing view of tax economists is that the corporate income tax falls primarily on shareholders. Because most corporate stock is owned by high income households, these households bear the incidence of this aspect of stock options. These conflicting effects on incidence mean that the overall incidence of qualified stock options is uncertain. Because this tax expenditure raises corporate income tax revenue by more than it reduces individual income tax revenue, the net effect is to increase federal tax revenue.

Rationale

The Revenue Act of 1964 (P.L. 88-272) enacted special rules for qualified stock options, which excluded these options from income when they were granted or exercised and instead included the gains as income at the time of sale of the stock. The Tax Reform Act of 1976 (P.L. 94-455) repealed these special provisions and thus subjected qualified stock options to the same rules as applied to nonqualified options. Therefore, if an employee receives an option, which has a readily ascertainable fair market value at the time it is granted, this value (less the option price paid for the option, if any) constituted ordinary income to the employee at that time. But, if the option did not have a readily ascertainable fair market value at the time it was granted, the value of the option did not constitute ordinary income to

the employee at that time. However, when the option was exercised, the spread between the option price and the value of the stock constituted ordinary income to the employee. The Economic Recovery Tax Act of 1981 (P.L. 97-34) reinstituted special rules for qualified stock options with the justification that encouraging the management of a business to have a proprietary interest in its successful operation would provide an important incentive to expand and improve the profit position of the companies involved.

The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) established code section 162(m), titled "Certain Excessive Employee Remuneration," which applied to the Chief Executive Officer (CEO) and the four highest compensated officers (other than the CEO) of a publicly held corporation. For each of these "covered employees," the publicly held corporation could only deduct, as an expense, the first \$1 million of applicable remuneration. The reason for this change was that "the committee [House Committee on the Budget] believes that excessive compensation will be reduced if the deduction for compensation ... paid to the top executives of publicly held corporations is limited to \$1 million per year." Exceptions to this \$1 million in applicable remuneration included (1) "remuneration payable on commission basis" and (2) "other performance-based compensation." In 2006, the Securities and Exchange Commission amended the rules for covered employees under Section 162(m). Under the new rules, covered executives are the principal executive officer (PEO), the principal financial officer (PFO), and the three most highly compensated executives other than the PEO and PFO. Economic theory suggests that the \$1 million cap on deductible compensation increased the relative importance of performance-related compensation including stock options.

Assessment

Tax advantages for qualified stock options may encourage some companies to provide them to employees rather than other forms of compensation that are not tax favored. Paying for the services of employees, officers, and directors by the use of stock options has several advantages for the companies. Start-up companies often use the method because it does not involve the immediate cash outlays that paying salaries involves; in effect, a stock option is a promise of a future payment, contingent on increases in the value of the company's stock. It also makes the employees' pay dependent on the performance of the company's stock, giving them extra incentive to try to improve the company's (or at least the stock's) performance.

Ownership of company stock is thought by many to assure that the company's employees, officers, and directors share the interests of the company's stockholders. Lastly, receiving pay in the form of stock options serves as a form of forced savings, since the money cannot be spent until the restrictions expire.

Critics of the stock options, however, argue that there is no real evidence that the use of stock options instead of cash compensation improves corporate performance. Furthermore, stock options are a risky form of pay, since the market value of the company's stock may decline rather than increase. Some employees may not want to make the outlays required to buy the stock, especially if the stock is subject to restrictions and cannot be sold immediately. And some simply may not want to invest their pay in their employer's stock. Critics also assert that the aggregate dollar amount of the benefits to employees is less than the aggregate dollar amount of the cost to employers (primarily corporations).

Selected Bibliography

Bickley, James M. Employee Stock Options: Tax Treatment and Tax Issues. Library of Congress, Congressional Research Service Report RL31458. Washington, DC: updated September 10, 2010.

Gravelle, Jane G. *Taxes and Incentive Stock Options*. Library of Congress, Congressional Research Service Report RS20874. Washington, DC: January 30, 2003.

Internal Revenue Service, "Covered Employees under Section 162(m)(3)," Notice 2007-49, *Internal Revenue Service Bulletin*: 2007-25, June 18, 2007.

-. Topic 427-Stock Options, 2012.

Johnson, Shane A. and Yisong S. Tian. "The Value and Incentive Effects of Nontraditional Executive Stock Option Plans." *Journal of Financial Economics*, vol. 57 (2000), pp. 3-34.

Nichols, Nancy and Luis Betancourt, "Options and the Deferred Tax Bite," *Journal of Accountancy*, March 2006.

- U.S. Congress, Congressional Budget Office. Accounting for Employee Stock Options. Washington, DC: April 2004.
- U.S. Congress, Joint Committee on Taxation. *Overview of Federal Income Tax Provisions Relating to Employee Stock Options* (JCX-107-00). Washington, DC: October 10, 2000.
- -. Present Law and Background Relating to Executive Compensation (JCX-39-06), Washington, DC: September 5, 2006.
- U.S. General Accounting Office, Federal Accounting Standards: Accounting for Stock Options and Other Share-Based Payments, Testimony

of David M. Walker, Comptroller General of the United States, before the House Committee on Energy and Commerce, GAO-04-962T, Washington, DC: July 8, 2004.

Rose, Nancy L., and Catherine Wolfram, *Regulating Executive Pay: Using the Tax Code to Influence CEO Compensation*, NBER Working Paper 7842, Cambridge, Mass.: National Bureau of Economic Research, August 2000.

Education, Training, Employment, and Social Services: Employment

EXCLUSION OF BENEFITS PROVIDED UNDER CAFETERIA PLANS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	31.0	-	31.0
2012	36.0	-	36.0
2013	39.6	-	39.6
2014	43.8	-	43.8
2015	47.2	-	47.2

Authorization

Section 125.

Description

Cafeteria plans allow employees to choose among cash and certain nontaxable benefits (such as health care) without paying taxes if they select the latter. A general rule of tax accounting is that when taxpayers have the option of receiving both cash and nontaxable benefits they are taxed even if they select the benefits, since they are deemed to be in constructive receipt of the cash (that is, since it is within their control to receive it). Section 125 of the Internal Revenue Code provides an express exception to this rule when certain nontaxable benefits are chosen under a cafeteria plan. The tax expenditure measures the loss of revenue from not including the nontaxable benefits in taxable income when employees have this choice. Cafeteria plan benefits are also not subject to employment taxes of either the employer or employee.

"Cash" includes not only cash payments but also employment benefits that are normally taxable, such as vacation pay. Nontaxable benefits include any employment benefits that are excluded from gross income under a specific section of the Code, other than long-term care insurance, scholarships or fellowships, employer educational assistance, miscellaneous fringe benefits, and most forms of deferred compensation. Nontaxable benefits typically included in cafeteria plans are accident and health insurance, dependent care assistance, group-term life insurance, and adoption assistance. If health insurance is the only benefit offered, the plan is known as a premium conversion plan. Employer contributions to health savings accounts are also an allowable nontaxable benefit.

Most flexible spending accounts (FSAs) are governed by cafeteria plan provisions, as are premium conversion arrangements under which employees pay their share of health insurance premiums on a pretax basis. In both cases, employees are choosing between cash wages (through voluntary salary-reduction agreements) and nontaxable benefits.

Cafeteria plans must be in writing. The written plan must describe the available benefits, eligibility rules, procedures governing benefit elections (usually occurring during an annual open season), employer contributions, and other matters. Under IRS regulations, midyear election changes generally are allowed only for employee status changes (e.g., the birth of a child) or benefit cost changes (e.g., child care fees increase), though midyear changes on the basis of cost are not allowed for health benefits.

Highly compensated individuals are taxed on all benefits if the cafeteria plan discriminates in favor of them as to eligibility, as are highly compensated participants with respect to contributions and benefits. Highly compensated individuals and participants include officers, 5-percent shareholders, someone with high compensation (more than \$105,000 in 2008), or a spouse or dependent of any of these individuals. In addition, if more than 25 percent of the total tax-favored benefits are provided to key employees, they will be taxed on all benefits. Key employees include officers earning more than \$150,000, 5-percent owners, 1-percent owners earning more than \$150,000, or one of the top 10 employee-owners. There are some exceptions to these rules, including cafeteria plans maintained under collective bargaining agreements.

Amounts in health care FSAs may be rolled over into Health Savings Accounts (HSAs) under legislation adopted at the end of 2006 (P.L. 109-432). Beginning in 2013, contributions to health care FSAs are limited to \$2,500.

Impact

Cafeteria plans allow employees to choose among a number of nontaxable employment benefits without incurring a tax liability simply because they could have received cash. The principal effect is to encourage employers to give employees some choice in the benefits they receive.

As with other tax exclusions, the tax benefits are greater for taxpayers with higher incomes. Higher income taxpayers may be more likely to choose nontaxable benefits (particularly health care benefits) instead of cash, which would be taxable. Lower income taxpayers may be more likely to choose cash, which they may value more highly and for which the tax rates would be comparatively low.

More employers reportedly are offering cafeteria plans, but employee access to them depends largely on firm size. According to a 2012 survey from the Bureau of Labor Statistics (BLS) 20 percent of employees had access to a flexible benefits plan, 37 percent to a dependent care plan, and 40 percent to healthcare reimbursement. For firms with less than 100 employees these ratios were 10, 20 and 22 percent. For firms with more than 500 employees, the percentages were 36, 66 and 70 percent. The federal government began to offer FSAs to its employees in July 2003. As of September 2008, there were about 240,000 federal health care FSAs.

Despite high percentage of employers offering FSAs, the average participation rate among employees has been much lower. According to a 2008 Mercer Survey, 22% of employees of large firms participated in an FSA in 2008 (compared with 21% the prior year). The average annual contribution was \$1,380.

Rationale

Under the Employee Retirement Income Security Act of 1974 (ERISA), an employer contribution made before January 1, 1977 to a cafeteria plan in existence on June 27, 1974 was required to be included in an employee's gross income only to the extent the employee *actually* elected taxable benefits. For plans not in existence on June 27, 1974, the employer contribution was included in gross income to the extent the employee *could* have elected taxable benefits.

The Tax Reform Act of 1976 extended these rules to employer contributions made before January 1, 1978. The Foreign Earned Income Act

of 1978 made a further extension until the effective date of the Revenue Act of 1978 (i.e., through 1978 for calendar-year taxpayers).

In the Revenue Act of 1978, the current provision as outlined above was added to the Code to ensure that the tax exclusion was permanent, but no specific rationale was provided.

The Deficit Reduction Act of 1984 limited permissible benefits and established additional reporting requirements. The Tax Reform Act of 1986 imposed stricter nondiscrimination rules (regarding favoritism towards highly compensated employees) on cafeteria and other employee benefit plans. In 1989, the latter rules were repealed by legislation to increase the public debt limit (P.L. 101-140).

By administrative rulings, federal government employees were allowed to start paying their health insurance premiums on a pretax basis in 2000 and to establish flexible spending accounts in 2003.

Also by administrative ruling, in 2005 the Internal Revenue Service (IRS) allowed employees an additional 2 and ½ months to use remaining balances in their health care FSAs at the end of the year. Previously, unused balances at the end of the year were forfeited to employers.

In August 2007 the IRS issued new proposed rules for cafeteria plans. The rules have not yet been finalized. IRS rules for cafeteria plans are important since there is relatively little statutory language, particularly for FSAs.

Beginning in 2013, contributions to health care FSAs are limited to \$2,500 (Patient Protection and Affordable Care Act of 2010, P.L. 111-148). That legislation also excluded over-the-counter drugs from coverage.

Assessment

Cafeteria plans often are more attractive to employees than fixed benefit packages since they can choose the benefits best suited to their individual circumstances. Usually, choice extends to both the type of benefit (health care, child care, etc.) as well as the amount, at least within certain limits. Ability to fine-tune benefits increases the efficient use of resources and may help some employees better balance competing demands of family and work.

As with other employment benefits, however, the favored tax treatment of cafeteria plans leads to different tax burdens for individuals with the same economic income. One justification for this outcome might be that it is in the public interest for employers to provide social benefits to workers if otherwise they would enroll in public programs or go without coverage. Providing social benefits through employment, however, puts burdens on employers, particularly those with a small number of workers, and may impede workers' willingness and ability to move among jobs.

Health care flexible spending accounts (FSAs) funded through salary reduction agreements allow employees to receive tax benefits for the first dollars of their unreimbursed medical expenditures; in contrast, other taxpayers get tax benefits only if they itemize deductions and their unreimbursed expenditures exceed 7½ percent of adjusted gross income. It is possible that FSAs encourage additional consumption of health care, though many workers are reluctant to put large sums in their accounts since unused amounts cannot be carried over to later years.

Selected Bibliography

Employee Benefits. Journal of Accountancy. v. 206 no. 2 (August 2008).

Mulvey, Janemarie. Tax Benefits for Health Insurance and Expenses: Overview of Current Law and Legislation. Library of Congress. CRS Report RL33505. (2012)

— . *Health Care Flexible Spending Accounts*, Library of Congress. CRS Report RL32656 (2012).

Roberts, Gary E. Municipal Government Benefits Practices and Personnel Outcomes: Results from a National Survey. *Public Personnel Management*. v. 33 no. 1, spring, 2004.

Ryan, Chris and Cathy Wells. FSA Rule Change a Mixed Bag for Participants, Administrators. *Benefits Law Journal*. vol. 18 no. 3, Autumn, 2005.

Turner, Robert. Fringe Benefits. *The Encyclopedia of Taxation and Tax Policy*. 2 edition. Washington, DC: Urban Institute Press, 2005.

- U.S. Bureau of Labor Statistics, National Compensation Survey, Table 41. Financial Benefits, Civilian Workers, March 2012. http://www.bls.gov/ncs/ebs/benefits/2012/ownership/civ_all.pdf
- U.S. Congress. Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, 98th Congress, 2nd session, December 31, 1984, pp. 867-872.
- U.S. Office of Personnel Management, Incremental Summary for 2008 Benefit Period.

Education, Training, Employment, and Social Services: Employment

EXCLUSION OF HOUSING ALLOWANCES FOR MINISTERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.7	-	0.7
2012	0.7	-	0.7
2013	0.7	-	0.7
2014	0.7	-	0.7
2015	0.8	-	0.8

Authorization

Sections 107, 265.

Description

In general, this provision allows ministers of the gospel to deduct certain housing related expenditures from their gross income. A minister of the gospel is defined as being "a duly ordained, commissioned, or licensed minister of a church." For those ministers who are not ordained, the status of "minister of the gospel" can be conferred upon them if they are qualified to perform substantially all of the duties of an ordained minister in the church. This definition is generally understood to apply to all clergy in all religions.

There are two major categories to which a minister may exclude housing related expenditures from their gross income: 1) If a clergy member is furnished a parsonage, the fair rental value may be excluded from gross income; and 2) If a clergy member receives a housing allowance, it may be excluded from gross income to the extent it is used to pay expenses in providing a home, including rent, mortgage interest, utilities, repairs, and other expenses directly relating to providing a home. The clergy member's employing organization must officially designate the allowance as a housing

allowance before paying it to the minister and it cannot exceed the fair rental value of the home.

In addition, ministers who receive cash housing allowances may also claim them as tax deductions on their individual income tax returns if they are used to pay mortgage interest and real estate taxes on their residences. While excluded from income taxes, the fair rental value or cash housing/furnishing allowance is subject to Social Security payroll taxes.

Impact

As a result of the special exclusion provided for parsonage allowances, ministers receiving such housing allowances pay less tax than other taxpayers with the same or smaller economic incomes. The tax benefit of the exclusion also provides a disproportionately greater benefit to relatively better-paid ministers, by virtue of the higher marginal tax rates applicable to their incomes.

Further, some ministers also claim additional income tax deductions for those housing costs paid for with their cash housing allowances, on top of the deduction of their housing allowance from their gross income.

Rationale

The provision of tax-free housing allowances for ministers was first included in the Internal Revenue Code by passage of the Revenue Act of 1921 (P.L. 67-98), without any stated rationale or Congressional discussion. This original legislation provided for an income tax exemption for "the rental value of a dwelling house and appurtenances thereof furnished to a minister of the gospel as part of his compensation." This 1921 legislation did not specifically address the issue of cash housing allowances. With this legislation, Congress may have intended to recognize clergy as an economically deprived group due to their relatively low incomes.

In 1954, after several cases dealing with cash housing allowances were litigated based on the 1921 Act, Congress responded by enacting a provision in the Internal Revenue Code of 1954 (P.L. 83-591), which provided a specific income tax exemption for cash housing allowances. Because some clergy members received church-provided housing while other received a housing allowance, Congress may have wished to provide equal tax treatment to both groups.

Several subsequent rulings and pieces of legislation addressed the issue of whether or not a housing allowance used to pay mortgage interest and property tax could also be used as a tax deduction. Effectively, this provision means that the housing allowance would be used as a double tax benefit, once as an exclusion from gross income and subsequently as a tax deduction. First, in a 1962 ruling (Revenue Ruling 62-212), the IRS said that interest amounts and taxes paid by a minister in connection with his personal residence are allowable as itemized deductions, in addition to the allowance exclusion from gross income. This ruling was revoked in 1983 (Revenue Ruling 83-3), though it never took effect as Congress intervened to delay its implementation.

Subsequently in the Tax Reform Act of 1986 (P.L. 99-514), Congress permanently reversed the IRS ruling saying that double tax benefit had been long-standing. Additionally, some Members of Congress were concerned that if the 1983 rule were allowed to stand, the IRS might extend the elimination of this double tax benefit treatment of housing allowances to U.S. military personnel in addition to clergy.

Following the Tax Reform Act of 1986, other legislation addressed the issue of the taxation of a housing allowance that exceeds fair rental value of a clergy's residence. In 1971, the IRS issued a ruling (Revenue Ruling 71-280) stating that the housing allowance may not exceed the fair rental value of the home plus the cost of utilities. To deal with a pending lawsuit in which 100 percent of compensation was designated as a housing allowance (Warren v. Commissioner, 114 T.C. 343 (2000)), Congress clarified the parsonage housing tax allowance with passage of the Clergy Housing Allowance Clarification Act of 2002 (P.L. 107-181). In large part Congress adopted the IRS position, which stated that the allowance should not exceed the fair rental value of the home, including furnishings and appurtenances such as a garage, plus the cost of utilities beginning on January 1, 2002 and that any housing allowance beyond this amount would be taxable. The Act says that it is intended to "minimize government intrusion into internal church operations and the relationship between a church and its clergy" and "recognize that clergy frequently are required to use their homes for purposes that would otherwise qualify for favorable tax treatment, but which may require more intrusive inquiries by the government into the relationship between clergy and their respective churches with respect to activities that are inherently religious."

Assessment

The tax-free parsonage allowances encourage some congregations to structure maximum amounts of tax-free housing allowances into their minister's pay and may thereby distort the compensation package.

The provision is inconsistent with economic principles of horizontal and vertical equity. Since all taxpayers may not exclude amounts they pay for housing from taxable income, the provision violates horizontal equity principles. For example, a clergyman teaching in an affiliated religious school may exclude the value of his housing allowance whereas a teacher in the same school may not. This illustrates how the tax law provides different tax treatment to two taxpayers whose economic incomes may be similar.

Vertical equity is a concept which requires that tax burdens be distributed fairly among people with different abilities to pay. Ministers with higher incomes receive a greater tax subsidy than lower-income ministers because of those with higher incomes pay taxes at higher marginal tax rates. The disproportionate benefit of the tax exclusion to individuals with higher incomes reduces the progressivity of the tax system, which is viewed as a reduction in equity.

Ministers who have church-provided homes do not receive the same tax benefits as those who purchase their homes and also have the tax deductions for interest and property taxes available to them. Code Section 265 disallows deductions for interest and expenses which relate to tax-exempt income except in the case of military housing allowances and the parsonage allowance. As such, this result is inconsistent with the general tax policy principle of preventing double counting of tax benefits.

Selected Bibliography

Anthony, Murray S. and Kent N. Schneider. "How to Minimize Your Minister's Taxes," *National Public Accountant*, v. 40 (December 1995), pp. 22-25.

Aprill, Ellen P. "Parsonage and Tax Policy: Rethinking the Exclusion," *Tax Notes*, v. 96, no. 9 (Aug. 26, 2002), pp. 1243-1257.

Bednar, Phil. "After Warren: Revisiting Taxpayer Standing and the Constitutionality of Parsonage Allowances," *Minnesota Law Review*, v. 87 (June 2003), pp. 2101-2131.

Dorocak, John R. "The Income Tax Exclusion of the Housing Allowance for Ministers," *Tax Notes*, v. 124 no. 4 (July 27, 2009), pp. 380-383.

Dwyer, Boyd Kimball. "Redefining 'Minister of the Gospel' To Limit Establishment Clause Issues," *Tax Notes*, v. 95. no. 12 (June 17, 2002), pp. 1809-1815.

Frazer, Douglas H. "The Clergy, the Constitution, and the Unbeatable Double Dip: The Strange Case of the Tax Code's Parsonage Allowance," *The Exempt Organization Tax Review*, v. 43. (February 2004), pp. 149-152.

Foster, Matthew W. "The Parsonage Allowance Exclusion: Past, Present, and Future," *Vanderbilt Law Review*, v. 44. January 1991, pp. 149-178.

Gompertz, Michael L. "Lawsuit Challenges Income Tax Preferences for Clergy," *Tax Notes*, v. 128 no. 1 (July 5, 2010), pp. 81-94.

Harris, Christine. "House Unanimously Clears Parsonage Exclusion Bill," *Tax Notes*, v. 95 no. 4 (April 22, 2002), pp. 474-475.

Hiner, Ronald R. and Darlene Pulliam Smith. "The Constitutionality of the Parsonage Allowance," Journal of Accountancy, v. 194. (Nov 2002), pp. 92-93.

Koski, Timothy R. "Divine Tax Opportunities for Members of the Clergy," *Practical Tax Strategies*, v. 63 (October 1999), pp. 207-208, 241-246.

Martin, Vernon M., Jr. and Sandra K. Miller. "The Clergy's Unique Tax Issues," *The Tax Adviser*, v. 29 (August 1998), pp. 557-561.

O'Neill, Thomas E. "A Constitutional Challenge to Section 107 of the Internal Revenue Code," *Notre Dame Lawyer*, v. 57. June 1982, pp. 853-867.

Raby, Burgess J.W. and William L. Raby. "Some Thoughts on the Parsonage Exemption Imbroglio," *Tax Notes*, v. 96, no. 11 (Sept. 9, 2002), p. 1497.

Rakowski, Eric. "The Parsonage Exclusion: New Developments," *Tax Notes*, v. 96, no. 3 (July 15, 2002), pp. 429-437.

Stokeld, Fred. "No Surprises in Ninth Circuit's Decision in Parsonage Case," *Tax Notes*, v. 96, no. 10 (Sept. 2, 2002), pp. 1318-1319.

- U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, H.R. 4170, 98th Congress, Public Law 98-369. Washington, DC: U.S. Government Printing Office, December 31, 1984, pp. 1168-1169.
- . General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514. Washington, DC: U.S. Government Printing Office, May 4, 1987, pp. 53-54.

Warren, Steven E. "Tax Planning for Clergy," *Taxes*, v. 72, January 1994, pp. 39-46.

Zelinsky, Edward A. "Dr. Warren, Section 107, and the Court-Appointed Amicus," *Tax Notes*, v. 96, no. 8 (Aug. 26, 2002), pp. 1267-1272.

Education, Training, Employment, and Social Services: Employment

EXCLUSION OF INCOME EARNED BY VOLUNTARY EMPLOYEES' BENEFICIARY ASSOCIATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	3.2		3.2
2012	3.3	-	3.3
2013	3.8	-	3.8
2014	4.1	-	4.1
2015	4.3	-	4.3

Authorization

Sections 419, 419A, 501(a), 501(c)(9), 4976.

Description

Voluntary Employees' Beneficiary Associations (VEBAs) are generally used to fund fringe benefits for groups of active or retired employees and their families. More specifically, funds from the VEBAs cover some or all of the expenses of life insurance, medical, disability, accident, and other welfare benefits to associations of employees, their dependents, and their beneficiaries. Contributions from VEBAs can be provided by either employers (which is relatively more common) or employees (which is relatively less common). Funds in the VEBAs are legally separate from the employer, belong to employees, and may never revert to an employer. A substantial majority of VEBAs are formed as trusts, and that is the context in which they will be discussed in this chapter. Provided certain requirements are met, income earned by VEBAs can be exempt from federal income taxes under Sections 501(a) and 501(c)(9). If certain requirements are not met, however, the income earned is subject to the unrelated business income tax (UBIT).

Employer contributions to VEBAs are deductible within the limits described below. In contrast, employee contributions are made with after-tax dollars. When distributed, VEBA benefits are taxable income to recipients unless 1) there is a statutory exclusion explicitly pertaining to those kinds of benefits, or 2) the contributions were made entirely by the employees. Thus, accident and health benefits are excluded from taxable income to workers under Sections 104 and 105. On the other hand, distributions of severance and vacation pay benefits are taxable under current tax law.

A VEBA must meet a number of general requirements, including: 1) it must be an association of employees who share a common employment-related bond; 2) membership in the association must be voluntary (or, if mandatory, under conditions described below); 3) the association must be controlled by its members, by an independent trustee (such as a bank), or by trustees or fiduciaries at least some of whom are designated by or on behalf of the members; 4) substantially all of the association's operations must further the provision of life, sickness, accident, and other welfare benefits to employees and their dependents and beneficiaries; 5) none of the net earnings of the association may accrue, other than by payment of benefits, directly or indirectly, to any shareholder or private individual; 6) benefit plans (other than collectively bargained plans) must not discriminate in favor of highly compensated individuals; and 7) the organization must apply to the IRS for a determination of tax exempt status.

These general requirements have been refined and limited by both IRS and court decisions. For example, employee members may have a common employer or affiliated employers, common coverage under a collective bargaining agreement or membership in a labor union, or a specified job classification. In addition, members may be employees of several employers engaged in the same line of business in the same geographic area. Not all members need be employees, but at least 90 percent of the membership on at least one day each calendar quarter must be employees. (Spouses and dependents that are eligible for benefits from the VEBA are not included in the calculation of the number of employees.) Membership may be required if contributions are not mandatory or if it is pursuant to a collective bargaining agreement or union membership. Permissible benefits generally include those that safeguard or improve members' health or that protect against contingencies that interrupt or impair their earning power such as benefits for vacations, recreational activities, and child care. Prohibited benefits include pension and annuities payable at retirement and deferred compensation unless it is payable due to an unanticipated event such as unemployment.

As noted above, benefits funded through VEBAs generally may not discriminate in favor of the highly paid. In addition, VEBAs used for prefunding of retiree medical or life insurance benefits are required to establish *separate* accounts for members who are key employees, where key employees generally include certain owners and officers of an employer, highly paid employees, or both.

With certain exceptions discussed below, employer deductions for VEBA contributions are limited to the sum of qualified direct costs and additions to qualified asset accounts, minus VEBA after-tax net income. These account limits are specified in Sections 419 and 419A.

- Qualified direct costs are the amounts employers could have deducted for employee benefits had they used cash basis accounting (essentially, benefits and account expenses actually paid during the year).
- Qualified asset accounts include: 1) reserves set aside for claims incurred but unpaid at the end of the year for disability, medical, supplemental unemployment and severance pay, and life insurance benefits; 2) administrative costs for paying those claims; and 3) additional reserves for post-retirement medical and life insurance benefits and for non-retirement medical benefits of bona fide association plans. The reserve for post-retirement benefits must be funded over the working lives of covered individuals on a level basis, using actuarial assumptions incorporating current, not projected, medical costs.
- After-tax net income consists of net interest and investment earnings plus employee contributions, minus any UBIT liability. Employer contributions are deductible only if they would otherwise be deductible as a trade or business expense or as an expense related to the production of income.

The prefunding limits described in the above three points do not apply to VEBAs created by a collective bargaining arrangement, employee pay-all VEBAs (sometimes called 419A(f)(5) VEBAs), or to multiple employer welfare plans (MEWAs) of ten or more employers in which no employer makes more than 10 percent of the contributions (sometimes called 419A(f)(6) plans). MEWAs cannot have experience-rated contributions for single employers.

VEBAs are subject to the UBIT to the extent they are overfunded because contributions exceed account limits. However, the UBIT does not apply on the following sources of income: 1) income that is either directly or indirectly attributable to assets held by a VEBA as of July 18, 1984 (the date of enactment of the Deficit Reduction Act of 1984); 2) income on collectively bargained or employee pay-all VEBAs; or 3) income on VEBAs for which substantially all contributions came from tax-exempt employers. Tax rates applicable to trusts are used to calculate the UBIT for VEBAs organized as trusts. Finally, under Section 4976, reversions of VEBA assets to an employer generally are subject to a 100% excise tax. There are differences between collectively-bargained and non-collectively-bargained VEBAs in terms of their ability to include medical inflation. In particular, in calculating the amount needed to fund current and perhaps future retiree health over the lifetime of the VEBA, trusts conducted in the absence of collective bargaining must assume that future medical inflation is zero. On the other hand, trusts created as part of a collective bargaining agreement can allow for future medical inflation, which leads to higher trust fund balances holding all other factors constant.

Impact

Historically, VEBAs have been used by employers for a variety of reasons. These reasons include segregating assets, earning tax free investment returns for qualified funds, reducing future contribution requirements by prefunding, creating an offsetting asset for an employer liability, and meeting requirements of rate-making bodies and regulatory agencies. Funding a welfare benefit through a VEBA often offers tax advantages to the employer as well as the employees. The magnitude of the tax advantage depends on the amount of benefits payable and the duration of the liability. Thus, the tax advantage is greater for a VEBA that funds the disabled claim reserve for a Long Term Disability plan than for a VEBA that funds the Incurred but Not Paid claim reserve for a medical plan. More recently, however, interest has focused on using VEBAs to fund health benefits for current and future retirees, especially retirees from firms in or contemplating bankruptcy proceedings.

Unlike qualified defined benefit pension plans, employers are not legally required to prefund retiree health plans. The use of VEBAs for prefunding retiree health benefits gathered momentum after the Financial Accounting Standards Board (FASB) required accrual accounting for non-pension post-retirement benefits under the Statement of Financial

Accounting Standard 106 (FAS 106). This accounting standard, which was effective for employers' fiscal years beginning after December 15, 1992, required employers to accrue the cost of anticipated future retiree health benefits, and recognize the cost as an expense on their income statement. If an employer had segregated assets dedicated to the payment of retiree health care benefits, the return on these assets reduced the net periodic postretirement health care cost. With the release of FAS 106, VEBAs that were the product of collective bargaining proved to be an attractive funding choice because the investment income on the funds accumulated tax-free and there were no limits on contributions.

In the absence of a VEBA, retirees in bankrupt companies often lose most or all of their health care coverage. In many cases, the firm is allowed to discontinue health care coverage promised in already-ratified collective bargaining agreements. Were this to happen, the current employees and retirees may lose most or all of their employer-sponsored retiree health benefits. (Until 2014, the health coverage tax credit may be available to employees if a bankrupt defined benefit pension plan was turned over to the Pension Benefit Guarantee Corporation.) Because the funds in a VEBA (for qualifying benefits) may never revert to the employer, the presence of a VEBA guarantees that the retirees will receive at least some retiree health coverage. However, VEBAs do not guarantee that projected benefits will be fully funded (i.e., contain enough money to pay for all coverage expected over the life of the VEBA). The value of future benefits depends on the amount of the contributions and the growth in the assets in the VEBA relative to the increase in health care costs.

For example, the negotiations in the late 2000s between the Detroit 3 automakers (General Motors, Ford, and Chrysler LLC) and the International Union, United Automobile, Aerospace, & Agricultural Implement Workers of America (UAW) established VEBAs for health benefits to current and some future retirees. Under the agreements, the automakers nearly eliminated their responsibility for retiree health benefits in exchange for making cash and other financial contributions that were significantly less than the present value of their obligations. The UAW received the security of knowing that the funds in the VEBA, and thus some retiree health benefits, would be protected if the automakers filed for bankruptcy.

Rationale

VEBAs were originally granted tax-exempt status by the Revenue Act of 1928, which allowed associations to provide payment of life, sickness,

accident, or other benefits to their members and dependents provided that: 1) no part of their net earnings accrued (other than through such payments) to the benefit of any private shareholder or individual; and 2) 85 percent or more of their income consisted of collections from members for the sole purpose of making benefit payments and paying expenses. Perhaps VEBAs were seen as providing welfare benefits that served a public interest and normally were exempt from taxation.

The Revenue Act of 1942 allowed employers to contribute to the association without violating the 85-percent-of-income requirement. In the Tax Reform Act of 1969, Congress eliminated the 85-percent requirement, allowing a tax exclusion for VEBAs that had more than 15 percent of their income from investments. However, the legislation imposed the UBIT on VEBA income (as well as the income of similar organizations) to the extent it was not used for exempt functions.

While VEBAs cannot be used for deferred compensation, sometimes it has been difficult to distinguish such benefits. Particularly after 1969, VEBAs presented opportunities for businesses to claim tax deductions for contributions that would not be paid out in benefits until many years afterwards, with investment earnings building tax-free. In many cases, the benefits were disproportionately available to corporate officers and higher-income employees. After passage of the Tax Equity and Fiscal Responsibility Act of 1982, there was increased marketing of benefit plans providing readily available deferred benefits (for severance pay, for example) to owners of small businesses that appeared to circumvent restrictions the Act had placed on qualified pensions.

In response, the Deficit Reduction Act of 1984 (DEFRA) placed tight restrictions on employer contributions (Section 419) and limitations on accounts (Section 419A). In addition, tighter nondiscrimination rules were adopted with respect to highly compensated individuals. These changes applied to welfare benefit funds generally, not just VEBAs. The nondiscrimination rules were further modified by the Tax Reform Act of 1986. The Tax Reform Act of 1986 also exempted collectively bargained welfare benefit funds and employee pay-all plans from account limits, thereby exempting the investment income on such VEBA trusts from the UBIT.

DEFRA did not apply these restrictions to collectively bargained plans or MEWA plans. In practice, both exemptions allowed arrangements that the IRS and others criticized as tax shelters. In 2003, IRS notice 2003-24 stated

that tax benefits purportedly generated by sham labor negotiations were not allowable for federal income tax purposes. The IRS also issued final regulations defining experience-rating arrangements that preclude employer deductions for MEWAs.

The Pension Protection Act of 2006 authorized an additional reserve for non-retirement medical benefits of bona fide association plans.

In October 2007, the IRS notices 2007-83 and 2007-84 cautioned taxpayers against using VEBAs to provide cash value life insurance or to provide post-retirement benefits such as health care on a seemingly nondiscriminatory basis that in practice primarily benefits the owners or other key employees. The notices were aimed at welfare benefit plans considered abusive by the IRS that were being sold to professional corporations and other small businesses. In addition, the IRS clarified that deductions are not allowed under Section 419 for contributions to pay cash value life insurance premiums (Rev. Rul. 2007-65). Deductions are disallowed whether the trust provides insurance as a benefit or uses the proceeds to fund other benefits.

Assessment

A VEBA may provide a valuable option for both employers and employees by providing tax-free contributions for employers and benefits to employees. In addition, the irrevocable trust fund associated with a VEBA helps protect the benefits, which is presumably what was intended when the list of qualifying benefits was developed.

VEBAs associated with bankruptcy proceeding, however, may be advantageous because they may help protect parties involved in the restructuring. Although VEBAs are usually underfunded, the employees are guaranteed some benefits instead of no benefits. At the same time, the employer's financial position is improved by the removal of future costs of the benefit from its financial.

Selected Bibliography

Borzi, Phyllis. Retiree Health VEBAs: A New Twist on an Old Paradigm, Implications for Retirees, Unions, and Employers. Henry J. Kaiser Family Foundation. (March 2009)

Creed, Maggie F. Investment Planning and Tax Implications for a Tax-Exempt Voluntary Employee Benefit Association Trust. Journal of Financial Service Professionals. vol 61 no.5 (September 2007) Elswick, Jill. VEBAs Gain Currency for Retiree Medical Benefits. *Employee Benefit News*. (June 1, 2003)

Geisel, Jerry. Making Retiree Health Care Affordable. *Business Insurance*. v. 40 no. 4 (January 23, 2006)

Ghilarducci, Teresa. The New Treaty of Detroit: Are Voluntary Employee Benefits Associations Organized Labor's Way Forward, or the Remnants of a Once Glorious Past? New Labor Market Institutions and the Public Response: A Symposium to Honor Lloyd Ulman. Berkeley, California (October 26, 2007)

Grudzien, Larry. The Great Vanishing Benefit, Employer Provided Retiree Medical Benefits: The Problem and Possible Solutions. *J. Marshall Law Review*. vol. 39 (2005-2006)

Hesse, Katherine A. VEBAs — Ordinary and Necessary Expenses — Deductions and Constructive Dividends. *Benefits Quarterly*. vol. 20 no. 3 (2004)

Joint Committee on Taxation. Welfare Benefit Plans. General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984. JCS-41-84 (December, 1984), p. 774-806.

Kehoe, Danea M. 419A: A Legislative Odyssey. *Journal of Financial Service Professionals*. v. 56 no. 2 (March, 2002)

Koresko, John J. and Jennifer S. Martin: VEBAs, Welfare Plans, and Section 419(f)(6): Is the IRS Trying to Regulate or Spread Propaganda? *Southwestern University Law Review*, v. 32 (2003)

Macey, Scott J. and George F. O'Donnell: Retiree Health Benefits - The Divergent Paths. New York University Review of Employee Benefits and Executive Compensation (2003)

Moran, Anne E. VEBAs: Possibilities for Employee Benefit Funding. *Employee Relations Law Journal*. v. 29 no 1 (summer, 2003)

Mulvey, Janemarie. Tax Benefits for Health Insurance and Expenses: Overview of Current Law and Legislation. Library of Congress. CRS Report RL33505 (2012)

O'Brien, Ellen. What Do the New Auto Industry VEBAs Mean for Current and Future Retirees? AARP Public Policy Institute. (March 2008)

Rapaport, Carol. Voluntary Employees' Beneficiary Associations (VEBAs) and Retiree Health Insurance in Unionized Firms. Library of Congress. CRS Report R41387. (2010)

Richardson, Michael I. and Daniel R. Salemi. Funding Postretirement Health Benefits Through a VEBA. *Benefits and Compensation Digest* (September 2007)

Ross, Allen F. Are VEBAs Worth Another Look? *Journal of Accountancy*. v. 187 no. 5 (May, 1999)

Utz, John L. Voluntary Employees' Beneficiary Associations ("VEBAs"): Part I. Journal of Deferred Compensation, vol. 14 no. 2 (Winter 2009) pp 1-84.

Utz, John L. Voluntary Employees' Beneficiary Associations ("VEBAs"): Part II. Journal of Deferred Compensation, vol. 14 no. 3 (Spring 2009) pp 1-103.

Education, Training, Employment, and Social Services: Employment

EXCLUSION OF MISCELLANEOUS FRINGE BENEFITS

Estimated Revenue Loss [In billions of dollars]

Fiscal year Total Individuals Corporations 6.5 6.5 2011 6.8 6.8 2012 6.9 6.9 2013 7.0 7.0 2014 7.1 7.1 2015

Authorization

Sections 132 and 117(D).

Description

Individuals do not include in income certain miscellaneous fringe benefits provided by employers, including services provided at no additional cost, employee discounts, working condition fringes, *de minimis* fringes, and certain tuition reductions. Special rules apply with respect to certain parking facilities provided to employees and certain on-premises athletic facilities.

These benefits also may be provided to spouses and dependent children of employees, retired and disabled former employees, and widows and widowers of deceased employees. Certain nondiscrimination requirements apply to benefits provided to highly compensated employees.

Impact

Exclusion from taxation of miscellaneous fringe benefits provides a subsidy to employment in those businesses and industries in which such fringe benefits are common and feasible. Employees of retail stores, for example, may receive discounts on purchases of store merchandise. Such

benefits may not be feasible in other industries — for example, for manufacturers of heavy equipment.

The subsidy provides benefits both to the employees (more are employed and they receive higher compensation) and to their employers (who have lower wage costs).

Rationale

This provision was enacted in 1984; the rules affecting transportation benefits were modified in 1992 and 1997. Congress recognized that in many industries employees receive either free or discount goods and services that the employer sells to the general public. In many cases, these practices had been long established and generally had been treated by employers, employees, and the Internal Revenue Service as not giving rise to taxable income.

Employees clearly receive a benefit from the availability of free or discounted goods or services, but the benefit may not be as great as the full amount of the discount. Employers may have valid business reasons, other than simply providing compensation, for encouraging employees to use the products they sell to the public. For example, a retail clothing business may want its salespersons to wear its clothing rather than clothing sold by its competitors. As with other fringe benefits, placing a value on the benefit in these cases is difficult.

In enacting these provisions, the Congress also wanted to establish limits on the use of tax-free fringe benefits. Prior to enactment of the provisions, the Treasury Department had been under a congressionally imposed moratorium on issuance of regulations defining the treatment of these fringes. There was a concern that without clear boundaries on use of these fringe benefits, new approaches could emerge that would further erode the tax base and increase inequities among employees in different businesses and industries.

Assessment

The exclusion subsidizes employment in those businesses and industries in which fringe benefits are feasible and commonly used. Both the employees and their employers benefit from the tax exclusion. Under normal market circumstances, more people are employed in these businesses and industries than they would otherwise be, and they receive higher compensation (after tax). Their employers receive their services at lower

cost. Both sides of the transaction benefit because the loss is imposed on the U.S. Treasury in the form of lower tax collections.

Because the exclusion applies to practices which are common and may be feasible only in some businesses and industries, it creates inequities in tax treatment among different employees and employers. For example, consumer-goods retail stores may be able to offer their employees discounts on a wide variety of goods ranging from clothing to hardware, while a manufacturer of aircraft engines cannot give its workers compensation in the form of tax-free discounts on its products.

Selected Bibliography

Elkins, David. "Taxing Fringe Benefits: The Israeli Experience." *International Tax Journal*, Vol. 31, Spring 2005, pp. 15-78.

Johnson, Calvin H. "An Employer Level Tax on Fringe Benefits," *Tax Notes*, April 27, 2009, pp. 483-489.

Kies, Kenneth J. "Analysis of the New Rules Governing the Taxation of Fringe Benefits," *Tax Notes*, v. 38. September 3, 1984, pp. 981-988.

McKinney, James E. "Certainty Provided as to the Treatment of Most Fringe Benefits by Deficit Reduction Act," *Journal of Taxation*. September 1984, pp. 134-137.

Raby, Burgess J. W. and William L. Raby. "Working Conditions Fringes: Fishing Trips to Telecommuting," *Tax Notes*, Vol. 101, October 27, 2003, pp. 503-507.

Sunley, Emil M., Jr. "Employee Benefits and Transfer Payments," *Comprehensive Income Taxation*, ed. Joseph A. Pechman. Washington. DC: The Brookings Institution, 1977, pp. 90-92.

Turner, Robert. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

- U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984.* Committee Print, 98th Congress, 2nd session. December 31, 1984, pp. 838-866.
- , Senate Committee on Finance. *Fringe Benefits*, Hearings, 98th Congress, 2nd session. July 26, 27, 30, 1984.

Education, Training, Employment, and Social Services: Employment

DISALLOWANCE OF THE DEDUCTION FOR EXCESS PARACHUTE PAYMENTS

Estimated Revenue Loss*

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	-0.2	-0.2
2012	-	-0.2	-0.2
2013	-	-0.2	-0.2
2014	-	-0.2	-0.2
2015	-	-0.2	-0.2

^{*} Estimate does not include effects of changes made by the Emergency Economic Stabilization Act of 2008.

Authorization

Section 280G and 4999.

Description

Corporations may enter into agreements with key personnel that are called parachute payments or "golden parachutes", under which the corporation agrees to pay these individuals substantial amounts contingent on a change in the ownership or control of the corporation. Any portion of such a payment over a base amount — an "excess parachute payment" — that is made to a disqualified individual is not deductible by the corporation. The base amount is the individual's average annual compensation from the five previous years and a disqualified individual is either a shareholder, an officer of the corporation or is among the highest paid 1 percent of employees of the corporation or the 250 highest paid individuals of the corporation. Severance payments to covered employees are also deemed an excess parachute payment for corporations that take place in the troubled asset relief program (TARP) or the direct purchase program. Any payment that violates

applicable securities laws or regulations is also characterized as an excess parachute payment.

Excess parachute payments are not deductible by the corporation. In addition, an individual receiving the payments must pay an excise tax (in addition to income taxes) equal to 20 percent of the amount of the excess parachute payment. Parachute payments are subject to FICA taxes when paid to recipients.

The parachute payment provisions do not apply to certain types of payments, including reasonable compensation, qualified plan payments, payments by a domestic small business corporation, and payments by corporations that, immediately before a change in control, have no stock that is readily tradable on an established securities market.

Impact

The disallowance of the deduction for excess parachute payments removes a subsidy for businesses in industries where excess parachute payments are common and feasible. They increase the after-tax cost, to the corporation, of this form of compensation, relative to deductible forms of compensation. The excise tax component, also, lowers the after tax value of excess parachute payments to executives. All else equal, these effects should reduce the desirability of excess parachute payments.

Rationale

The golden parachute provisions were enacted by the Omnibus Budget Reconciliation Act of 1993, in part, because the agreements were thought to hinder acquisition activity in the marketplace. In particular, agreements to pay key personnel large amounts could make a target corporation less attractive to an acquiring corporation. In other situations, payments made to key personnel to encourage a takeover might not be in the best interests of the shareholders. And, regardless of whether a friendly or hostile takeover is involved, the amounts paid to key personnel reduce the amounts available for the shareholders.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expended the definition of an excess parachute payment for corporations that benefit from the public's participation in their economic recovery. One factor motivating this change was concern over the fairness or equity of parachute payments being given to executives of companies that benefit from the Emergency Economic Stabilization Act of 2008.

Assessment

The use and magnitude of excess parachute payments have increased since the enactment of provisions designed to make them less desirable forms of compensation. Nevertheless, the original rationale for the provisions remains valid. In the absence of these provisions, it is possible that excess parachute payments would be more prevalent and further increase inequality.

Selected Bibliography

Bebchuk, Lucian A. "Executive Compensation as an Agency Problem," *Journal of Economic Perspectives* 17, (2003), pp. 71-92.

— and Yaniv Grinstein. *The Growth of Executive Pay*, National Bureau of Economic Research Working Paper no. 11443, (2005).

Jensen, Michael C. and Kevin J. Murphy. "Performance, Pay and Top-Management Incentives." *Journal of Political Economy* 98, (1990), pp. 225-264.

Knoeber, Charles R., "Golden Parachutes, Shark Repellents, and Hostile Tender Offers," *American Economic Review*, v. 76, (1986), pp. 155-167.

Labonte, Marc and Gary Shorter, *The Economics of Corporate Executive Pay*, Library of Congress, Congressional Research Service Report RL33935. Washington, D.C.: 2007.

Lefaniwicz, Craig E., John R. Robinson, and Reed Smith, "Golden Parachutes and Managerial Incentives in Corporate Acquisitions: Evidence from the 1980s and 1990s," *Journal of Corporate Finance*, (2000), pp. 215-239.

Murphy, Kevin J. "Executive Compensation", in Orley Ashenfelter and David Card eds., *Handbook of Labor Economics* vol. 3, bk. 2. (New York: Elsevier, 1999).

U.S. Congress. Joint Committee on Taxation. General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, H.R. 4170, 98th Congress, Public Law 98-369. (Washington, DC: GPO, 1985), pp. 828-830.

Education, Training, Employment, and Social Services: Employment

LIMITS ON DEDUCTIBLE COMPENSATION

Estimated Revenue Loss*

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-	-0.5	-0.5
2012	-	-0.5	-0.5
2013	-	-0.6	-0.6
2014	-	-0.7	-0.7
2015	-	-0.7	-0.7

^{*} Estimate does not include effects of changes made by the Emergency Economic Stabilization Act of 2008.

Authorization

Section 162(m).

Description

Publicly held corporations can, generally, deduct employee compensation in the calculation of taxable income. An exception to this rule pertains to executive compensation, for which only \$1 million is deductible. This limit is reduced to \$500,000 for each year a corporation has more than \$300,000,000 in outstanding assets acquired under the troubled asset relief program (TARP). After 2012, the \$500,000 limit will also apply to remuneration to officers, employees, directors, and service providers of covered health insurance providers under health insurance legislation. This threshold is reduced by the amount (if any) of excess golden parachute payments and any excise tax paid with respect to insider stock compensation. Performance-based compensation and specified commissions are not treated as compensation, for the purposes of this provision.

Impact

The cap on deductible executive compensation provides an incentive for businesses to favor performance-based compensation in the structuring of executive compensation package, relative to fixed compensation. Given the uncertainty surrounding performance-based compensation this would bias, all else equal, total executive compensation upward.

Rationale

Before the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) all non-excessive executive compensation was deductible. The Act of 1993 codified this concept by enacting a \$1 million cap on non-excessive executive compensation in response to concerns over the size of executive compensation packages.

The Emergency Economic Stabilization Act of 2008 reduced this cap, to \$500,000 for corporations that benefited from the public's participation in their economic recovery. One factor motivating this change were concerns over the fairness or equity of high executive compensation being given to executives of companies that benefit from the Emergency Economic Stabilization Act of 2008.

The Patient Protection and Affordable Care Act (P.L. 111-148) added the lower limit for health care providers.

Assessment

Since the early 1970s the real wages of non-managerial workers have been stagnant, while executive compensation has risen dramatically. Supporters of executive pay caps suggest that this is indicative of a larger social equity concern — inequality — and view the limit on deductible compensation as a tool to achieve greater equality. Opponents of the limitation, in contrast, argue that the limitation is inefficient because it creates a wedge between the marginal product and compensation of the executive.

Supporters of current CEO pay levels argue that executive compensation is determined by normal private market bargaining, that rising pay reflects competition for a limited number of qualified candidates, and that even the richest pay packages are a bargain compared with the billions in shareholder wealth that successful CEOs create. Others, however, view executive pay as excessive. Some see a social equity problem, taking CEO

pay as symptomatic of a troublesome rise in income and wealth inequality. Others see excessive pay as a form of shareholder abuse made possible by weak corporate governance structures and a lack of clear, comprehensive disclosure of the various components of executive compensation.

Selected Bibliography

Bebchuk, Lucian A. "Executive Compensation as an Agency Problem." *Journal of Economic Perspectives* 17, (2003), pp. 71-92.

— and Yaniv Grinstein. *The Growth of Executive Pay*, National Bureau of Economic Research Working Paper no. 11443, (2005).

Jensen, Michael C. and Kevin J. Murphy. "Performance, Pay and Top-Management Incentives." *Journal of Political Economy* 98, (1990), pp. 225-264.

Labonte, Marc and Gary Shorter, *The Economics of Corporate Executive Pay*, Library of Congress, Congressional Research Service Report RL33935. Washington, D.C.: 2007.

Murphy, Kevin J. "Executive Compensation", in Orley Ashenfelter and David Card eds., *Handbook of Labor Economics* vol. 3, bk. 2. (New York: Elsevier, 1999).

Education, Training, Employment, and Social Services: Employment

WORK OPPORTUNITY TAX CREDIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.1	0.6	0.7
2012	0.1	0.4	0.5
2013	$\binom{1}{2}$	0.2	0.2
2014	(¹)	0.1	0.1
2015	(1)	(1)	0.0

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Note: The extension in P.L. 111-312 increased the cost by \$0.1 billion in FY2012 and by less than \$50 million in FY2013 and FY2014.

Authorization

Sections 51 and 52.

Description

The Work Opportunity Tax Credit (WOTC) is a non-refundable wage credit whose purpose is to increase job opportunities for specified groups of disadvantaged individuals by temporarily reducing the net cost to employers of hiring them. It has never been a permanent subsidy, and with the exception of one group, the credit expired at the end of 2011. A bill enacted in the 112th Congress (P.L. 112-56) extends the WOTC for eligible veterans through 2012.

Over the 16-year history of the credit, employers that hired persons from the following groups could benefit from the credit:

(1) families receiving benefits under the Temporary Assistance for Needy Families (TANF) program for nine of the 18 months before the hiring date;

- (2) 18- to 39-year olds who are members of families receiving food stamps under the Food and Nutrition Act of 2008 (FNA) during the six months ending on the hiring date or, in the case of abled-bodied individuals with no dependents who no longer are eligible for food assistance under section 6(o) of the act and belong to families receiving food stamps in at least three of the five months ending on the hiring date;
- (3) "designated community residents" (i.e., persons who are between 18 and 39 years old on the hiring date) whose principal place of residence was located in an empowerment zone, an enterprise community, a renewal community, or a rural renewal county;
- (4) ex-felons with hiring dates within one year of the last date of conviction or release from prison;
- (5) vocational rehabilitation referrals, who are defined as individuals with physical or mental disabilities that greatly restrict their employment opportunities who are referred to employers upon completion of or while receiving rehabilitative services under one of the following plans: (a) an individualized written plan for employment based on a state plan for vocational rehabilitation services approved under the Rehabilitation Act of 1973, (b) a vocational rehabilitation program for veterans carried out under chapter 31 of title 38, United States Code, or (c) an individual work plan developed and implemented by an employment network under section 1148(g) of the Social Security Act;
- (6) Supplemental Security Income (SSI) recipients who receive benefits under Title XVI of the Social Security Act for any month ending within 60 days of the hiring date;
- (7) veterans who are (a) members of families receiving food stamps under the FNA for at least three of the 15 months ending on the hiring date, or who are (b) entitled to compensation for a service-connected disability and whose hiring date either is not more than one year after having been discharged or released from active duty in the Armed Forces or comes after being unemployed in at least six of the twelve months preceding that date;
- (8) 16- to 17-year olds (or summer youth) hired for any 90-day period between May 1 and September 15 whose principal place of residence is in an empowerment zone or renewal community;
- (9) in 2009 and 2010 only, disconnected 16- to 24-year olds who did not regularly attend school or were not regularly employed during the six months

leading up to the hiring date and were hard to employ because of inadequate skills; and

(10) in 2009 and 2010 only, unemployed veterans who were discharged or released from active duty in the Armed Forces during the five years preceding the hiring date and who received unemployment compensation for at least four weeks during the year preceding that date.

During the first year of employment for a WOTC-certified person, (except for veterans entitled to compensation for a service-related disability and summer youth), an employer could claim an income tax credit equal to 40% of the first \$6,000 in wages if the worker is employed at least 400 hours. If the WOTC-certified person (except veterans entitled to compensation for a service-connected disability and summer youth) is employed for 120 to 399 hours, the credit rate drops to 25%. No credit is available for eligible employees who work fewer than 120 hours.

For veterans who are WOTC-eligible because they received compensation for service-connected disabilities, the credit applies to their first \$12,000 in wages. And for summer youth, the maximum wage to which the credit applies is \$3,000.

Employers claiming the WOTC must reduce their deductions for employee compensation by the amount of the credit to prevent them from deriving two tax benefits from the same wage expenditures. In addition, the credit an employer may claim is capped at 90 percent of its regular income tax or alternative minimum tax liability; any unused credit can be carried back one year or forward up to 20 years, since the WOTC is a component of the general business credit (GBC) under section 38.

Impact

Administration of the credit is split between the federal and state governments. At the federal level, the Internal Revenue Service (IRS) processes and verifies claims for the WOTC, while the U.S. Department of Labor's Employment and Training Administration (ETA) manages the certification process. State workforce agencies (SWAs), assisted by what are known as participating agencies (e.g., job corps centers, local welfare agencies, food stamp program agencies, and VA offices), are responsible for certifying that newly hired workers in their states qualify for the credit.

Employers cannot claim the WOTC until the SWA in their states have certified that new hires are members of one of the targeted groups. The

certification process entails several steps. First, an employer completes page 1 of IRS Form 8850 (*Pre-Screening Notice and Certification Request for the Work Opportunity Credit*) by the date of a job offer and page 2 of the same form after the person is hired. Then the employer completes ETA Form 9061 (*Individual Characteristics* Form) or Form 9062 (*Conditional Certification Form*); the former is filled out if the ETA has not given the new hire a conditional certification; the latter is filled out if the job candidate was given Form 9062 by a participating agency. In the final step, the employer files the signed and dated IRS and ETA forms with the state's SWA's WOTC Coordinator within 28 days after the new hire begins to work.

In FY2011, SWAs issued 1,160,523 certifications of WOTC eligibility for new hires, up from 940,657 certifications in FY 2010. During the first 10 years of the program's history, the majority of WOTC certifications were issued for members of the TANF group. But since FY2007, a majority has been issued for 18-24 year olds in families receiving supplemental nutrition assistance. In FY2008, for example, the group accounted for 61 percent of all certifications (excluding long-term family assistance recipients). The remaining WOTC certifications that year were issued as follows: 14 percent for members of families receiving TANF benefits; 11 percent for designated community residents; 7 percent for ex-felons; 4% for SSI recipients; 3 percent for vocational rehabilitation referrals; 2 percent for veterans; and less than 1 percent for summer youth.

It is worth noting that certifications represent determinations of eligibility. Thus, they will exceed the number of credits claimed unless all WOTC-certified hires remain on firms' payrolls for the minimum employment period.

Rationale

The WOTC is intended to help certain classes of individuals who tend to experience difficulty obtaining employment in both good and bad economic times get jobs in the private sector. It does so by reducing the relative cost of hiring these individuals through a temporary wage credit. It is hoped that the credit is sufficiently large to overcome the resistance of many employers to hire persons with relatively few skills and presumed low productivity.

The WOTC evolved from an earlier tax credit aimed at encouraging firms to hire hard-to-employ individuals, the Targeted Jobs Tax Credit (TJTC), which was available from 1978 through 1994. Evaluations of the

TJTC suggested that it was less than successful in achieving its main objectives. Critics argued the TJTC fell short of the mark for two reasons. First, it subsidized the hiring of targeted individuals who would have been hired in any event. Second, the credit largely failed to provide those individuals with the work experience and on-the-job training needed to obtain unsubsidized jobs with higher pay.

Congress retained this approach (though with some modifications) to increasing employment opportunities for disadvantaged workers in adopting the WOTC. The Small Business Job Protection Act of 1996 (P.L. 104-188) created the credit and made it available from October 1, 1996 through September 31, 1997.

The Taxpayer Relief Act of 1997 (P.L. 105-34) made several changes in the design of the WOTC, including adding eight targeted groups (Social Security Income recipients) and creating a two-tiered credit based on length of employment. It also extended the credit from October 1, 1997 through June 30, 1998.

After a lapse of four months, Congress retroactively extended the credit for one year, through June 30, 1999, by passing the Omnibus Consolidated and Emergency Appropriations Act, 1999 (P.L. 105-277).

A provision of the Ticket to Work and Work Incentives Improvement Act of 1999 (P.L. 106-170) again retroactively extended the WOTC through December 31, 2001.

Under the Consolidated Appropriations Act, 2001 (P.L. 106-554), renewal communities were added to the definition of "high risk" and "summer youth" groups. As a result, employers claiming the WOTC were required to coordinate it with a new wage tax credit (the New Markets Tax Credit) for hiring renewal community residents who performed most of their employment duties within such an area.

After a two-month lapse, Congress extended the WOTC through December 31, 2003 for qualified individuals hired after December 31, 2001 by passing the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147). The act also expanded the groups eligible for the credit to include so-called New York Liberty Zone employees and allowed firms with 200 or fewer employees located in the immediate vicinity of the World Trade Center during the terrorist attacks on September 11, 2001 to claim the credit for eligible employees in both 2002 and 2003.

Congress created the Welfare-to-Work tax credit (WTWTC) by passing the Taxpayer Relief Act of 1997. It was extended three times before the credit expired on December 31, 2003.

The Working Families Tax Relief Act of 2004 (P.L. 108-311) retroactively extended the WOTC and WTWTC through December 31, 2005, following a 10-month lapse.

P.L. 109-73 added so-called Hurricane Katrina employees to the groups eligible for the WOTC from August 28, 2005 to August 28, 2007. To qualify, workers had to be hired for positions in the core disaster area.

The Tax Relief and Health Care Act of 2006 (P.L. 109-432) retroactively extended the WOTC two years, through December 31, 2007. It also merged the WTWTC and the WOTC, thereby eliminating the former as a separate tax provision. As a result, employers that hired long-term family assistance recipients after December 31, 2006 were allowed to claim a WOTC with a 25 percent rate for recipients who were employed for 120 to 399 hours in their first year of employment; the rate increased to 40 percent for recipients who worked 400 or more hours during their first year. Wages eligible for the credit were capped at \$10,000 in the recipients' first two years of employment. The WOTC rate for the second year was set at 50 percent.

Under the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Act of 2007 (P.L. 110-28), the WOTC was extended through August 31, 2011. The act also added "rural renewal" counties to the places of residence for designated community residents.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) expanded the WOTC to cover unemployed veterans and disconnected youth hired in 2009 or 2010. Unemployed veterans were defined as persons having been discharged or released from active duty within five years of their hiring date and having received unemployment compensation under state or federal law for not less than four weeks during the one-year period ending on the hiring date. Disconnected youth were defined as 16-24 years olds who did not regularly attend secondary, technical, or post-secondary school during the six-month period preceding the hiring date, were not regularly employed during that period, and were difficult to hire because they lacked needed skills.

An extension of the WOTC through December 31, 2011 was included in the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2012 (P.L. 111-312).

Most recently, P.L. 112-56 expanded the group of veterans eligible for the credit, modified the first-year wages against which it can be claimed for veterans, and extended the credit for veterans only through December 31, 2012. As a result, the wage limit during the first year of employment is \$6,000 for veterans who are members of a family receiving supplemental nutrition assistance benefits for three or more of the twelve months before being hired, and for veterans who have been unemployed at least four weeks but less than six months in the year before being hired. The wage limit rises to \$12,000 for veterans who are eligible for disability compensation from the Veterans Administration (VA) within one year of discharge or release from active duty. Employers who hire veterans who have been unemployed for six or more months in the year before being hired may claim the WOTC against a wage limit of \$14,000. And the wage limit increases to \$24,000 for veterans who are eligible for disability compensation from the VA and have been unemployed six or more months in the year before being hired.

Assessment

In assessing the effects of the WOTC, it is useful to keep in mind what the credit does and does not do. Basically, the WOTC is a hiring subsidy designed to encourage employers to hire more disadvantaged individuals than they otherwise would, perhaps because of the cost of training them and their relatively low productivity. The credit is not intended to create new jobs or promote recovery in labor markets weakened by an economic downturn. In other words, the WOTC's main objective is job creation for members of the targeted groups, many of whom have low incomes and are unskilled, not job creation for the economy as a whole. Achieving this objective does not require the creation of new jobs, only that more of the targeted individuals are hired to fill existing jobs than would be hired without the WOTC.

The credit raises several policy issues that Congress may wish to explore as it considers whether or not to extend the expired WOTC, and if so, whether to modify its design. They can be summarized as questions: Does the credit achieve its main objective of increasing job opportunities for targeted disadvantaged persons? Is the WOTC cost-effective? What are the credit's advantages and disadvantages relative to alternative approaches to expanding employment opportunities for individuals from low-income households who are to employ because they lack basic work-related skills?

Available evidence on the effects of the credit comes from a series of studies that have been published since 2001. On the whole, they have looked at the credit's impact on selected sets of targeted individuals and employers over a period of one to three years. Their key findings and the implications of the findings for the three policy issues are discussed below.

The first in this line of studies was done by the (then-named) General Accounting Office (GAO) and released in March 2001. It examined the characteristics of employers in California and Texas that claimed the WOTC from 1997 to 1999, and the extent to which they churned or replaced workers to maximize the credit they could claim. GAO found that corporations with gross receipts of \$1 billion or more accounted for two-thirds of the value of total claims for the credit in those states during that period. Two industries with relatively high labor turnover rates earned 81 percent of the credit: nonfinancial services (e.g., lodging, restaurants, and other personal services) and retail trade. And relatively few employers hired most of the WOTCcertified persons. GAO also found that employers claiming the credit were not turning over their workforces for this purpose. More specifically, the results indicated that WOTC-certified workers in California and Texas were not terminated more often from 1997 to 1999 than non-certified workers with comparable skills and experience when the earnings of both groups rose above \$6,000, the wage limit for the credit in their first year of employment. Most of the employers in the data sample did not view the credit as costeffective and thus filed fewer claims for it than some had expected. They estimated that the WOTC offset about 47 percent of the cost of recruiting, hiring, and training WOTC-eligible workers, on average.

Around the time the GAO report was issued, the U.S. Department of Labor released a study done under contract by Westat and Decision Information Resources of the credit's impact on employer hiring decisions. Most of the data used in the analysis came from a series of interviews of executives with 16 companies in five states (California, Georgia, Maryland, Missouri, and Wisconsin) that had claimed the credit. The researchers concluded that the WOTC was having little or no influence on the companies' hiring decisions.

The GAO made a second contribution to the growing body of evidence on the effectiveness of the WOTC by issuing a report in December 2002 on the impact of existing federal tax incentives on the hiring, training, and workplace accommodation of workers with a variety of disabilities. Based on an analysis of 1999 tax year data obtained from the IRS, GAO found that

relatively few employers were taking the WOTC for disabled individuals. In 1999, for instance, 1 out of every 790 corporations and 1 out of every 3,450 individuals with non-corporate business income claimed the credit. The report pointed to several likely explanations for this finding. First, WOTC eligibility was limited to disabled persons receiving publicly funded vocational rehabilitation or SSI benefits. Second, several national surveys of U.S. companies indicated that very few supervisors of disabled employees were aware of existing employment tax incentives such as the WOTC. And human resource managers tended to regard such incentives as less effective than more direct, hands-on approaches to improving the job prospects for disabled persons such as staff training, mentoring, on-site consultation, technical assistance, and strong support from senior managers for programs to hire more disabled workers.

A fourth study of the credit was done by economist Sarah Hamersma and published in December 2003. Using data from the Survey of Income and Program Participation, she assessed the "take-up" (or participation) rate for the credit among two WOTC-eligible groups: recipients of TANF and participants in the supplemental nutrition assistance program. She found that from 1997 to 1999, employers nationwide claimed the credit for few new hires from both groups. Specifically, the results indicated that the "upper bound" on participation among eligible youth was 17 percent in 1999; the rate was higher for welfare recipients, with an estimated upper bound of 33 percent. In Hamersma's view, the low take-up rates probably resulted from the relatively short job tenures of the WOTC-certified workers. Many of them left their jobs before they had been employed 400 or more hours, denying their employers the maximum credit of \$2,400 per employee.

Hamersma analyzed the tenure and wage effects of the WOTC in a study published in 2005. The former referred to the likelihood a WOTC-certified employee would lose her job after having been employed for a year; the latter addressed the effect of the credit on the wages paid such an employee in her first year on the job. Using earnings data from a sample of employers in Wisconsin, she found that they did not terminate WOTC-certified hires after the first year of employment more often than they terminated non-WOTC-eligible workers in similar jobs. She also estimated that the average WOTC-certified worker received about 40 percent of the credit as a wage premium, with the remainder going to the employer.

A 2007 study by J.M. Gunderson and Julie L. Hotchkiss used employment and earnings data from a single large employer in Georgia to

determine whether it churned its WOTC-certified employees to maximize the credit it could take. The results showed that WOTC employees were "significantly" less likely to leave the company after one year than non-WOTC employees performing the same jobs, though the average tenure for the former was only slightly longer. There was no evidence of churning. Gunderson and Hotchkiss also found that the company's WOTC employees were as likely to find another job upon quitting or being let go as its non-WOTC employees.

Another study (released in 2008) by Hamersma (with assistance from Carolyn Henrich) analyzed the use of the credit from July 1999 to December 2001 by temporary help services (THS) firms located in Wisconsin. Using administrative data from the firms, they discovered that credit-certified THS workers had higher earnings than non-credit-certified THS workers in the short run, but that the difference disappeared after a year or so. The finding led them to conclude that some of the value of WOTC passed through to THS workers in the form of increased earnings per quarter. They also found that job tenure was roughly the same between the two groups. And only one of the 101 THS firms that responded to a telephone survey they conducted reported that a prospective employee's eligibility for the credit could affect their hiring decisions. According to Hamersma and Henrich, these findings suggested that the WOTC had little impact on the THS employment outcomes for targeted individuals and did little to encourage temporary employment firms to hire additional disadvantaged persons.

Yet another study by Hamersma (*Economic Inquiry* 2011) used administrative data for companies in a broad range of industries located in Wisconsin to assess the take-up rate for the WOTC from 1999 to 2002. She found a strong correlation between a company's take-up rate for the credit and the percentage of its workforce that had surpassed the job-duration threshold for the maximum WOTC. This suggested that a company was more likely to claim the credit if a relatively high percentage of its WOTC-certified workers were employed 400 or more hours. But the study uncovered no evidence that companies with such workers "systematically modified the duration of their workers to maximize subsidy payments."

A 2012 study by Paul Heaton of the RAND National Defense Research Institute examined the employment effects in 2007 and 2008 of the expansion of the WOTC in 2007 to include disabled veterans who had been recently discharged or unemployed for more than six months in the previous year. Employers could claim a credit of \$4,800 for each new hire who was

employed for 400 or more hours in the first year. Using differences-indifferences, triple-differences, and quadruple-differences research methods involving qualified veterans and disabled and non-disabled nonveterans who did and did not qualify for the credit, Heaton estimated that the WOTC generated a 2 percent increase in employment among the targeted group of veterans. This translated into a gain in the number of employed disabled veterans of 32,000 in 2007 and in 2008 at a cost to the federal government of about \$10,000 per job-year. He also found that eligibility for the credit raised the wage income of hired disabled veterans by 40 percent relative to the wage income of persons not eligible for the credit who were hired to perform similar work.

Finally, a 2012 study (published in the *Economic Development Quarterly*) by Olugbenga Ajilore looked into whether the credit led employers to substitute WOTC-certified workers for incumbent workers to maximize the credit they could claim. To determine if such substitution had occurred, he used a differences-indifferences method to find out whether the availability of the credit caused an increase in employment for members of a representative target group and a decrease in employment for a group that was a close substitute for that group. Ajilore found no evidence of such substitution after the WOTC became available. But he did find evidence that the credit was effective in increasing the employment rates of long-term welfare recipients.

The results of these studies say little about the credit's effectiveness and nothing about its cost-effectiveness or its advantages and disadvantages relative to other policy options for increasing the employment of disadvantaged groups. Still, they offer some useful insights into the effect of the WOTC on employers and eligible and ineligible workers with comparable jobs. Specifically, the take-up rate for the credit has been surprisingly low; there is no evidence that employers are trying to maximize the credit they can claim by replacing current ineligible workers with credit-certified workers or letting credit-certified workers go after one year and hiring other such workers to replace them; credit-certified employees have earned higher wages than comparable credit-ineligible employees because of the credit; employment of WOTC-certified disabled veterans has risen (perhaps by 2 percent) because of the credit; and the credit seems to have improved the employment opportunities for long-term welfare recipients.

Still, it is unclear how effective the credit has been overall. Nor is it clear if the credit is more cost-effective than other policy options, such as

federal subsidies to job training and education for disadvantaged persons. Some analysts argue that replacing the credit with federal formula grants to states to support local programs that combine training, employment subsidies, and support services would be a more cost-effective way to boost the job opportunities for individuals that are hard to employ, regardless of the state of the economy. A systematic comparison of the advantages and disadvantages of the WOTC and alternative policies (especially labor demand subsidies) would further clarify for Congress the best practical approach to expanding employment opportunities for disadvantaged individuals in a way that improves their long-term job prospects, community standing, standard of living, and well-being.

Selected Bibliography

Ajilore, Olugbenga. "Did the Work Opportunity Tax Credit Cause Subsidized Worker Substitution?" *Economic Development Quarterly*, v. 26, no. 3 (2012), pp. 231-239.

Bartik, Timothy. "Adding Labor Demand Incentives to Encourage Employment of the Disadvantaged." *Employment Research Newsletter*, Upjohn Institute, v. 16, no. 3: 2009.

Bartik, Timothy J and John H. Bishop. "The Job Creation Tax Credit: Dismal Projections for Employment Call for a Quick, Efficient, and Effective Response." Economic Policy Institute Briefing Paper No. 248, Washington: October 20, 2009.

Cappelli, Peter. Assessing the Effect of the Work Opportunity Tax Credit. ADP: October 5, 2011, available at http://www.adp.com/tools-and-resources/compliance-connection/tax-incentives/resources/legislative-updates/~/media/29092F9B946146FEB1FBE459105CD42E.ashx.

Christian, Blake. "Hire a Hero, Enjoy the Benefits." *Journal of Accountancy*, v. 213, no. 5 (2012), pp. 54-57.

Hamersma, Sarah. "The Work Opportunity Tax Credit: Participation Rates Among Eligible Workers." *National Tax Journal*, v. 56, no. 4, December 2003, pp. 725-738.

Hamersma, Sarah. *The Work Opportunity and Welfare-to-Work Tax Credits*. Urban-Brookings Tax Policy Center, No. 15. Washington, DC: October 2005.

Hamersma, Sarah. "The Effects of an Employer Subsidy on Employment Outcomes: A Study of the Work Opportunity and Welfare-to-Work Tax Credits." *Journal of Policy Analysis and Management*. v. 27, no. 3 (2008), pp. 498-520.

Hamersma, Sarah and Carolyn Heinrich. "Temporary Help Service Firms' Use of Employer Tax Credits: Implications for Disadvantaged Workers' Labor Market Outcomes." *Southern Economic Journal*. v. 74, no. 4 (2008), pp. 1123-1148.

Hamersma, Sarah. "Why Don't Eligible Firms Claim Hiring Subsidies? The Role of Job Duration." *Economic Inquiry*, v. 49, no. 3 (2011), pp. 916-934

Heaton, Paul. "The Effect of Hiring Tax Credits on Employment of Disabled Veterans." Occasional paper. National Defense Research Institute, RAND Corp.: 2012.

Howard, Christopher. The Hidden Welfare State: Tax Expenditures and Social Policy in the United States. Princeton: Princeton University Press: 1997.

Levine, Linda. *Targeted Jobs Tax Credit, 1978-1994*, Congressional Research Service Report 95-981. Washington, DC: September 19, 1995.

Lower-Basch, Elizabeth. Rethinking Work Opportunity: From Tax Credits to Subsidized Job Placements. CLASP, Washington: November 2011.

Scott, Christine. *The Work Opportunity Tax Credit (WOTC)*, Congressional Research Service Report RL30089. Washington, DC: November 23, 2011.

- U.S. General Accounting Office. Work Opportunity Credit: Employers Do Not Appear to Dismiss Employees to Increase Tax Credits. GAO-01-329, Washington: March 2001.
- U.S. General Accounting Office. Business Tax Incentives to Employ Workers with Disabilities Receive Limited Use and Have an Uncertain Impact, GAO-03-39, Washington: December 2002.

Westat and Decision Information Resources, Inc. Employers' Use and Assessment of the WOTC and Welfare-to-Work Tax Credits Program. Washington, DC: March 2001.

Education, Training, Employment, and Social Services: Employment

CREDIT FOR RETENTION OF CERTAIN WORKERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.5	1.7	3.2
2012	0.6	0.9	1.5
2013	(¹)	0.3	0.3
2014	(¹)	0.2	0.2
2015	(1)	0.1	0.1

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 38(b).

Description

The provision allows a business credit for retention of newly hired qualified workers. Employers would be allowed a business tax credit equal to 6.2 percent of the wages (capped at \$1,000 per employee) for each qualified worker who remains employed for 52 weeks at the firm. Further, a qualified worker's wages during the last 26 weeks (of the 52 week period) must be at least 80-percent of the wages earned in the first 26 week period. The portion of the general business tax credit attributable to this credit may not be carried back to prior tax years.

Impact

The provision provides an incentive for businesses to retain, for at least 52 weeks, new employees hired in 2010.

Rationale

The Hiring Incentives to Restore Employment (HIRE) Act (P.L. 111-147) introduced this provision (along with a temporary forgiveness of payroll taxes) to spur employment.

Assessment

The retention tax credit may be of limited immediate usefulness to businesses. First, since this is an income tax credit, the employer would not receive the benefits of retaining workers until they file their 2011 income returns in early 2012. Furthermore, firms with little or no tax liability (including nonprofits) cannot take full advantage of this incentive since the credit is neither refundable nor eligible for carry back.

Further, empirical and theoretical analysis of prior employment tax credit programs have found mixed results. Taken together, the results of the various studies suggest that incremental tax credits have the potential of increasing employment, but in practice may not be as effective in increasing employment as desired. There are several reasons why this may be the case. First, jobs tax credits are often complex (so as to subsidize new jobs rather than all jobs), and many employers, especially small businesses, may not want to incur the necessary record-keeping costs. Second, since eligibility for the tax credit is determined when the firm files the annual tax return, firms do not know if they are eligible for the credit at the time hiring decisions are made. Third, many firms may not even be aware of the availability of the tax credit until it is time to file a tax return. Additionally, the person making the hiring decision is often unaware of tax provisions and the tax situation of the firm. Lastly, product demand appears to be the primary determinant of hiring.

Selected Bibliography

Bartik, Timothy J. and John H. Bishop, *The Job Creation Tax Credit*, Economic Policy Institute Briefing Paper, October 20, 2009 at: http://www.epi.org/publications/entry/bp248/.

Bishop, John, "Employment in Construction and Distribution Industries: The Impact of the New Jobs Tax Credit," in *Studies in Labor Markets*, ed. Sherwin Rosen (Chicago: University of Chicago Press, 1981, pp. 209-246.

- and Mark Montgomery, "Does the Targeted Jobs Tax Credit Create Jobs at Subsidized Firms?" *Industrial Relations*, vol. 32, no. 3, fall 1993, pp. 289-306.

Departments of Labor and Treasury, The Use of Tax Subsidies for Employment, A Report to Congress, Washington, May 1986.

Gravelle, Jane and Thomas L. Hungerford, *Business Investment and Employment Tax Incentives to Stimulate the Economy*, Library of Congress, CRS Report R41034, January 6, 2012.

Perloff, Jeffrey M. and Michael L. Wachter, "The New Jobs Tax Credit: An Evaluation of the 1977-78 Wage Subsidy Program," *American Economic Review*, papers and proceedings, v. 69, no. 2 (May 1979). pp. 173-179.

Sunley, Emil M., "A Tax Preference in Born: A Legislative History of the New Jobs Tax Credit," in *The Economics of Taxation*, ed. Henry J. Aaron and Michael J. Boskin, Washington, DC: Brookings Institution, 1980, pp. 391-408.

Tannenwald, Robert, "Are Wage and Training Subsidies Cost-Effective? Some Evidence from the New Jobs Tax Credit," *New England Economic Review*, September/October 1982, pp. 25-34.

Education, Training, Employment, and Social Services: Social Services

CREDIT FOR CHILD AND DEPENDENT CARE AND EXCLUSION OF EMPLOYER-PROVIDED CHILD CARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	4.6		4.6
2012	3.1	-	3.1
2013	2.6	-	2.6
2014	2.6	-	2.6
2015	2.5	-	2.5

Authorization

Sections 21 and 129.

Description

A taxpayer may claim a nonrefundable tax credit (Section 21) for employment-related expenses incurred for the care of a dependent child (or a disabled dependent or spouse). The maximum dependent care tax credit is 35 percent (30 percent after December 31, 2012) of up to \$3,000 (\$2,400 after December 31, 2012) in expenses, if there is one qualifying individual, and up to \$6,000 (\$4,800 after December 31, 2012) for two or more qualifying individuals. The credit rate is reduced by one percentage point for each \$2,000 of adjusted gross income (AGI), or fraction thereof, above \$15,000 (\$10,000 after December 31, 2012). until the credit rate of 20 percent is reached for taxpayers with AGI incomes above \$43,000 (\$28,000 after December 31, 2012). Married couples must file a joint return in order to be eligible for the credit.

In addition, payments by an employer, under a dependent care assistance program, for qualified dependent care assistance provided to an

employee are excluded from the employee's income and, thus, not subject to federal individual income tax (Section 129). The qualified expenditures are not counted as wages, and therefore, are also not subject to employment taxes. The maximum exclusion amount is \$5,000, and may not exceed the lesser of the earned income of the employee or the employee's spouse if married.

For each dollar a taxpayer receives through an employer dependent care assistance program, a reduction of one dollar is made in the maximum qualified expenses for the dependent care tax credit.

To qualify, the employer assistance must be provided under a plan which meets certain conditions, including eligibility conditions which do not discriminate in favor of principal shareholders, owners, officers, highly compensated individuals or their dependents, and the program must be available to a broad class of employees. The law provides that reasonable notification of the availability and terms of the program must be made to eligible employees.

Qualified expenses (for both the tax credit and the income exclusion) include expenses for household services, day care centers, and other similar types of noninstitutional care which are incurred in order to permit the taxpayer to be gainfully employed. Qualified expenses are eligible if they are for a dependent under 13, or for a physically or mentally incapacitated spouse or dependent who lives with the taxpayer for more than half of the tax year. Dependent care centers must comply with state and local laws and regulations to qualify. Payments may be made to relatives who are not dependents of the taxpayer or a child of the taxpayer under age 19.

Impact

The credit benefits qualified taxpayers with sufficient tax liability to take advantage of it, without regard to whether they itemize their deductions. It operates by reducing tax liability, but not to less than zero because the credit is nonrefundable. Thus, the credit does not benefit persons with incomes so low that they have no tax liability.

Distribution by Income	Class of the Tax	x Expenditure for the	Dependent
	Care Credit,	2010	

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	1.1
\$20 to \$30	11.0
\$30 to \$40	13.4
\$40 to \$50	8.6
\$50 to \$75	19.4
\$75 to \$100	17.1
\$100 to \$200	24.7
\$200 and over	4.7

The credit rate phases down from 35 to 20 percent as income rises from \$15,000 to \$43,000, providing a larger monetary benefit to parents with incomes of \$43,000 or less. In the past, the absence of an inflation adjustment has affected the ability of moderate-income taxpayers to receive the maximum benefits under the credit.

The tax exclusion provides an incentive for employers to provide, and employees to receive, compensation in the form of dependent-care assistance rather than cash. The assistance is free from income and employment taxes, while the cash income is not. As is the case with all deductions and exclusions, this benefit is related to the taxpayer's marginal tax rate and, thus, provides a greater benefit to taxpayers in high tax brackets than those in low tax brackets. To the extent employers provide dependent care assistance rather than increases in salaries or wages, the Social Security Trust Fund and the Hospital Insurance Trust Fund (for Medicare) lose receipts. Because of the lower amounts of earnings reported to Social Security the employee may receive a lower Social Security benefit during retirement years.

Rationale

The deduction for child and dependent care services was first enacted in 1954. The allowance was limited to \$600 per year and was phased out for families with income between \$4,500 and \$5,100. Single parents and widow(er)s did not have an income limitation for the deduction. The

provision was intended to recognize the similarity of child care expenses to employee business expenses and provide a limited benefit. Some believe compassion and the desire to reduce welfare costs contributed to the enactment of this allowance.

The provision was made more generous in 1964, and was revised and broadened in 1971. Several new justifications in 1971 included encouraging the hiring of domestic workers, encouraging the care of incapacitated persons at home rather than in institutions, providing relief to middle-income taxpayers as well as low-income taxpayers, and providing relief for employment-related expenses of household services as well as for dependent care.

The Tax Reduction Act of 1975 substantially increased the income limits (\$18,000 to \$35,000) for taxpayers who could claim the deduction.

The deduction was replaced by a nonrefundable credit with enactment of the Tax Reform Act of 1976. Congress believed that such expenses were a cost of earning income for all taxpayers and that it was wrong to deny the benefits to those taking the standard deduction. Also, the tax credit provided relatively more benefit than the deduction to taxpayers in the lower tax brackets.

The Revenue Act of 1978 provided that the child care credit was available for payments made to relatives. The stated rationale was that, in general, relatives provide better attention and the allowance would help strengthen family ties.

The tax exclusion was enacted in the Economic Recovery Tax Act of 1981 (P.L. 97-34), and was intended to provide an incentive for employers to become more involved in the provision of dependent care services for their employees. Also in 1981, the tax credit was converted into the current sliding-scale credit and increased the maximum amount of qualified expenses. The congressional rationale for increasing the maximum amounts was due to substantial increases in costs for child care. The purpose of switching to a sliding-scale credit was to target the increases in the credit toward low- and middle-income taxpayers because Congress felt that group was in greatest need of relief.

The Family Support Act of 1988 modified the dependent care tax credit. First, the credit became available for care of children under 13 rather than 15. Second, a dollar-for-dollar offset was provided against the amount of

expenses eligible for the dependent care credit for amounts excluded under an employer-provided dependent care assistance program. Finally, the act provided that the taxpayer must report on his or her tax return the name, address, and taxpayer identification number of the dependent care provider.

With passage of the Economic Growth and Tax Relief Reconciliation Act of 2001, the sliding-scale credit was increased 5 percent while the maximum expenditure amounts for care were raised from \$2,400 to \$3,000 for one qualifying individual and from \$4,800 to \$6,000 in the case of two or more qualified individuals. It seems likely that these changes were made because these provisions are not subject to an automatic inflation provision. These changes were originally to expire December 31, 2010.

The provision was further amended by the Job Creation and Worker Assistance Act of 2002 which determined that the amount of "deemed earned income" in the case of a nonworking spouse incapable of self-care or a student is increased to \$250 if there is one qualifying child or dependent, or \$500 if there are two or more children.

In 2004, the Working Families Tax Relief Act was passed which made two changes for dependent care expenses. The bill imposed a requirement that a disabled dependent (or spouse), who is not a qualifying child under age 13, live with the taxpayer for more than half the tax year. It also eliminated the requirement that the taxpayer maintain a household in which the qualifying dependent resides.

In 2010, the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act (P.L. 111-312) extended the provisions adopted in 2001 and scheduled to expire after 2010 for an additional two years. The provisions are scheduled to expire on December 31, 2012.

Assessment

An argument for the child and dependent care tax credit is that child care is a work-related cost; if this is the rationale, however, it can also be argued that the amount should be a deductible expense that is available to all taxpayers.

The issue of whether the tax credit is progressive or regressive lingers because an examination of distribution tables shows that the greatest federal revenue losses occur at higher rather than lower income levels. The distribution table appearing earlier in this section shows that taxpayers whose adjusted gross incomes were under \$20,000 are estimated to claim 1.1

percent of the total value of the tax credit in 2010, while taxpayers in the \$50,000-\$75,000 income class are estimated to claim 19.4 percent. However, the determination of the dependent care tax credit progressivity cannot be made simply by comparing an estimate of the federal tax expenditure. A more appropriate measure is the credit amount relative to the taxpayer's income.

It is generally observed that the credit is regressive at lower income levels primarily because the credit is non-refundable. Thus, the structure of the credit (albeit, except at low-income levels) has been found to be progressive.

This is not meant to imply that if the credit were made refundable it would solve all of the problems associated with child care for low-income workers. For example, the earned income tax credit is refundable and designed so that payments can be made to the provision's beneficiaries during the tax year. In practice, few elect to receive advance payments, and wait to claim the credit when their annual tax returns are filed the following year. This experience illustrates the potential problems encountered in designing a transfer mechanism for payment of a refundable child care credit. The truly poor would need such payments in order to make payments to caregivers.

The child and dependent care tax credit still lacks an automatic adjustment for inflation, while other code provisions are adjusted yearly. In the past, this absence of an automatic yearly adjustment has affected the ability of low-income taxpayers to use the credit.

Prior to tax year 2003, the qualifying expenditure amount had not been increased since 1982. The current \$3,000 and \$6,000 limits for qualified expenses, which expire on December 31, 2012, are equivalent to \$58 per week for one qualifying individual and \$115 for two or more qualifying individuals. The effect of the credit on reducing a taxpayer's after tax cost of child care will vary. Child care costs vary by state, and ranged in 2011 from a low of \$87.42 per week for an infant to a high of \$224.40 for a 4-year-old child.

In order to properly administer the dependent care tax credit, the Internal Revenue Service requires submission of a tax identification number for the provider of care. To claim the credit a taxpayer must include this information on the tax return. This information requirement may complicate income tax filing, but the additional complexity aids in compliance by

reducing fraudulent claims. To the extent that payments are made to individuals, the taxpayer may also be responsible for employment taxes on the payments.

The debate over the income exclusion for dependent care expenses turns on whether the expenses are viewed as personal consumption or business expenses (costs of producing income). Some have noted that the \$5,000 limit for the exclusion may be an attempt to restrict the personal consumption element for middle and upper income taxpayers.

The income tax exclusion violates the economic principle of horizontal equity, in that all taxpayers with similar incomes and work-related child care expenses are not treated equally. Only taxpayers whose employers have a qualified child care assistance program may exclude from income taxes a portion of their work-related child care expenses. Since upper-income taxpayers will receive a greater subsidy than lower-income taxpayers because of their higher tax rate, the tax subsidy is inverse to need. If employers substitute benefits for wage or salary increases, the benefits are not subject to employment taxes, impacting the Social Security and Hospital Insurance Trust Funds.

On the positive side, it is generally believed that the availability of dependent care can reduce employee absenteeism and unproductive work time. The tax exclusion may also encourage full participation of women in the work force as the lower after-tax cost of child care may not only affect labor force participation but hours of work. Further, it can be expected that the provision affects the mode of child care by reducing home care and encouraging more formal care such as child care centers. Those employers that may gain most by the provision of dependent-care services are those whose employees are predominantly female, younger, and whose industries have high personnel turnover.

Selected Bibliography

Altshuler, Rosanne. and Amy Ellen Schwartz. "On the Progressivity of the Child Care Tax Credit: Snapshot Versus Time-Exposure Incidence." *National Tax Journal*, v. 49 (March 1996), pp. 55-71.

Averett, Susan L.; H. Elizabeth Peters, and Donald M. Waldman. "Tax Credits, Labor Supply, and Child Care," *The Review of Economics and Statistics*, v. 79 (February 1997), pp. 125-135.

Child Care Aware of America, Parents and the High Cost of Child Care, 2012 Report.

Connelly, Rachel, Deborah S. Degraff, and Rachel Willis. "The Value of Employer-Sponsored Child Care to Employees," *Industrial Relations*, v. 43, issue 4, October 2004, pp. 759-793.

Dickert-Conlin, Stacy, Katie Fitzpatrick, and Andrew Hanson, "Utilization of Income Tax Credits by Low-Income Individuals, "*National Tax Journal* v.58, no. 4, December 2005.

Dunbar, Amy E. "Child Care Expenses: The Child Care Credit," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005, pp. 53-55.

Gentry, William M. and Alison P. Hagy. "The Distributional Effects of the Tax Treatment of Child Care Expenses." Cambridge, Mass., National Bureau of Economic Research, 1995. 43 p. (Working Paper no. 5088).

Gravelle, Jane G. Federal Income Tax Treatment of the Family, Library of Congress, Congressional Research Service Report 91-694 RCO. Washington, DC (Available from the author).

Greenberg, Mark, "Next Steps for Federal Child Care Policy", *The Future of Children*, Vol. 17, No. 2, Fall 2007, pp. 73-96.

Heen, Mary L. "Welfare Reform, Child Care Costs, and Taxes: Delivering Increased Work-Related Child Care Benefits to Low-Income Families. *Yale Law and Policy Review*, v. 13 (January 1996), pp. 173-217.

Hollingsworth, Joel S. "Save the Cleavers: Taxation of the Traditional Family," *Regents University Law Review*, v. 13, no. 1, (2000/2001), pp. 29-64.

Kelly, Erin L. "The Strange History of Employer-Sponsored Child Care: Interested Actors, Uncertainty, and the Transformation of Law in Organizational Fields," *The American Journal of Sociology*, v. 109, no. 3, November 2003, pp. 606-649.

Koniak, Jaime. "Should the Street Take Care? The Impact of Corporate-Sponsored Day Care on Business in the New Millenium." *Columbia Business Law Review*, 2002, pp. 193-222.

McIntyre, Lee. "The Growth of Work-Site Daycare," Federal Reserve Bank of Boston Regional Review, v. 10, no. 3, (2000) pp. 8-15.

National Women's Law Center, "Indexing the DCTC is Necessary to Prevent Further Erosion of the Credit's Value to Low-Income Families." working paper, April 2003, pp. 1-4.

Rothausen, Teresa J., Jorge A. Gonzalez and Nicole E. Clarke. "Family-Friendly Backlash — Fact or Fiction? The Case of Organizations' On-Site Child Care Centers," *Personnel Psychology*, v. 51, no. 3 (Autumn 1998), pp. 685-706.

Scott, Christine, and Janemarie Mulvey. *Dependent Care: Current Tax Benefits and Legislative Issues*, Library of Congress, Congressional Research Service Report RS21466, Washington, DC., 2012.

Seetharaman, Ananth and Govind S. Iyer. "A Comparison of Alternative Measures of Tax Progressivity: The Case of the Child and Dependent Care Credit," *Journal of the American Taxation Association*, v. 17 (Spring 1995), pp. 42-70.

Steuerle, C. Eugene. "Systemic Thinking About Subsidies for Child Care," *Tax Notes* 78 (1998): 749.

Stoltzfus, Emilie. *Citizen, Mother, Worker*. University of North Carolina Press, 2003.

- U.C. Census, Who's Minding the Kids, Child Care Arrangements: Spring 2005/Summer 2006, August 2010, Table 2, p. 13.
- U.S. Congress, Congressional Budget Office. *Budget Options*. "Eliminate the Tax Exclusion for Employer-Sponsored Dependent Care." Washington, DC: February 2001, p. 406.
- U.S. Congress, House Committee on Ways and Means. 2008 Green Book; Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means, available on the Committee website.
- U.S. Congress, Joint Committee. *General Explanation of the Economic Recovery Tax Act of 1981 (H.R. 4242, 97th Congress; Public Law 97-34)*. Washington, DC: U.S. Government Printing Office, December 31, 1981, pp. 53-56.

Education, Training, Employment, and Social Services: Social Services

CREDIT FOR EMPLOYER-PROVIDED DEPENDENT CARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	(1)	(1)
2012	$\binom{1}{2}$	(1)	(¹)
2013	$\binom{1}{2}$	(1)	(¹)
2014	$\binom{1}{2}$	(1)	(¹)
2015	$\binom{1}{2}$	(1)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 45F

Description

Employers are allowed a tax credit equal to 25 percent of qualified expenses for employee child care and 10 percent of qualified expenses for child care resource and referral services. Qualified child care expenses include the cost of acquiring, constructing, rehabilitating or expanding property used for a qualified child care facility, costs for the operation of the facility (including training costs and certain compensation for employees, and scholarship programs), or for contracting with a qualified child care facility to provide child care.

A qualified child care facility must have child care as its principal purpose and must meet all applicable state and local laws and regulations. A facility operated by a taxpayer is not a qualified child care facility unless, in addition to these requirements, the facility is open to all employees and, if qualified child care is the principal trade or business of the taxpayer, at least 30 percent of the enrollees at the facility are dependents of employees of the

taxpayer. Use of a qualified child care facility and use of child care resource and referral services cannot discriminate in favor of highly paid employees.

The maximum total credit that may be claimed by a taxpayer cannot exceed \$150,000 per taxable year. The credit is reduced by the amounts of any tax deduction claimed for the same expenditures. Any credit claimed for acquiring, constructing, rehabilitating, or expanding property is recaptured if the facility ceases to operate as a qualified child care facility, or for certain ownership transfers within the first 10 years. The credit recapture is a percentage, based on the year when the cessation as a qualified child care facility or transfer occurs.

Impact

A 25 percent credit is a very large tax subsidy which should significantly decrease the cost of on-site facilities for employers and encourage some firms to develop on-site facilities. Firms have to be large enough to make the facility viable, i.e. have enough employees with children in need of child care. Thus, large firms will most likely be those that provide on-site child care.

This nonrefundable tax credit has the potential to violate the principle of horizontal equity, which requires that similarly situated taxpayers should bear similar tax burdens. Mid- and small-sized firms may not have sufficient tax liability to be able to take advantage of the credit. Even for those firms that are able to claim the credit, they may not be able to claim the full amount because of limited tax liability.

Although the credit is contingent on non-discrimination in favor of more highly compensated employees, this provision, unlike child care tax benefits in general, may provide greater benefits to middle and upper income individuals because its relative cost effect is dependent on the size of the firm and not the income of the employees. Indeed, lower income employees may not be able to afford the higher quality child care facilities offered by some firms (although some employers subsidize costs for lower income workers).

Rationale

This provision was adopted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) and was designed to encourage on-site employer child care facilities. It was scheduled to expire after 2010 but was extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312).

Assessment

Specific subsidies for on-site employer-provided child care would be economically justified if there were a market failure that prevented firms from providing this service. Few firms offer such facilities, although small firms may not have enough potential clients to allow the center to be economically viable. The limit on the subsidy amount is intended to target smaller firms, but it is not clear why such activities are under-supplied by the market. Some research has suggested that on-site care produces benefits that firms may not take into account, such as reduced absenteeism and increased productivity, but not all evidence is consistent with that view. In addition, employers may be reluctant to commit to on-site child care because of uncertainties regarding costs and return. There is also some concern that employer-provided child care centers may create resentment among employees who are either childless or on a waiting list for admittance of their children to the center.

Some firms have also begun offering emergency or back-up care, which is a more limited proposition that may be more likely to reduce absenteeism. The credits may encourage more firms of larger size to provide these benefits, which may increase productivity because parents are not forced to stay home with a sick child or a child whose care giver is temporarily not available.

Selected Bibliography

"Deciding How to Provide Dependent Care Isn't Child's Play." *Personnel Journal*, v. 74, October 1995, p. 92.

Fitzpatrick, Christina Smith and Nancy Duff Campbell. "The Little Engine that Hasn't: The Poor Performance of Employer Tax Credits for Child Care." *National Women's Law Center*, November 2002.

Koniak, Jaime. "Should the Street Take Care? The Impact of Corporate-Sponsored Day Care on Business in the New Millenium." *Columbia Business Law Review*, 2002, pp. 193-222.

McIntyre, Lee. "The Growth of Work-Site Daycare." Federal Reserve Bank of Boston Regional Review, Vol. 10, No. 3, 2000, pp. 8-15.

Rosenberg, Lee Fletcher. "Child Care Benefits May Get Boost from Tax Credit." *Business Insurance*, Vol. 35, July 30, 2001, pp. 3, 34.

Rothausen, Teresa J, et al. "Family-Friendly Backlash — Fact or Fiction? The Case of Organizations' On-Site Child Care Centers." *Personnel Psychology*, v. 51 (Autumn 1998), pp. 685-706.

Woodward, Nancy Hatch. "Child Care to the Rescue." *HRMagazine*, Vol. 44, August 1999, pp. 82-84.

Education, Training, Employment, and Social Services: Social Services

ADOPTION CREDIT AND EMPLOYEE ADOPTION BENEFITS EXCLUSION

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.0	-	1.0
2012	0.5	-	0.5
2013	(¹)	-	(¹)
2014	$\binom{1}{2}$	-	(¹)
2015	(1)	-	(1)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 23, 36C (for tax years 2010 and 2011 only), 137.

Description

The tax code provides a dollar-for-dollar adoption tax credit for qualified adoption expenses and an income tax exclusion of benefits received under employer-sponsored adoption assistance programs. Both have a limitation on qualified expenses that is indexed for inflation (\$12,650 in tax year 2012). For tax years 2010 and 2011 only, the adoption tax credit was refundable. For other tax years, the adoption tax credit is nonrefundable, but may be carried forward five years. Employer-provided adoption assistance benefits must be received under a written plan for an employer-sponsored adoption assistance program. Both the tax credit and income tax exclusion amounts are phased-out (allowable qualified adoption expenses are reduced) for taxpayers with adjusted gross incomes above statutory thresholds. For tax year 2012, a taxpayer with modified adjusted gross income over \$189,710 has qualified adoption expenses reduced. For a modified adjusted gross income of \$229,710 or more, the qualified adoption expenses are reduced to zero. The phase-out range is adjusted for inflation. The adoption credit is

allowed against the alternative minimum tax. Unlike some other tax exclusions, the exclusion for employer-provided adoption assistance is only for the income tax. Benefits provided through an employer-provided adoption assistance program are subject to employment taxes.

Qualified adoption expenses include reasonable and necessary adoption fees, court costs, attorney fees, and other expenses directly related to a legal adoption of a qualified child. A qualified child is under age 18; or an individual of any age who is physically or mentally incapable of caring for themselves. In the case of special needs adoptions, state required expenses such as construction, renovations, alterations, or other purchases may qualify as adoption expenditures. In the case of a special needs adoption, the maximum tax credit is allowed regardless of actual qualified adoption expenses. For domestic adoptions, qualified adoption expenses are eligible for the tax credit and income tax exclusion when incurred. For intercountry (foreign) adoptions, qualified adoption expenses are not eligible for the tax credit or income tax exclusion until after the adoption is finalized.

The provisions are unavailable for expenses related to surrogate parenting arrangements, or the adoption of a spouse's child. The provisions are also unavailable for expenditures contrary to state or federal law.

The code prohibits double benefits. Qualified adoption expenses cannot be used for both the adoption tax credit and the income tax exclusion. If a deduction or credit is taken for the qualified adoption expenses under other Internal Revenue Code sections, the adoption tax credit and income tax exclusion would not be available for any adoption expenses used for the other deduction of credit. The adoption tax credit or income tax exclusion is also not available for expenses paid by a grant received under a federal, state, or local program.

Married couples are generally required to file a joint tax return to be eligible for the credit. The Secretary of the Treasury is permitted to establish, by regulation, procedures to ensure that unmarried taxpayers who adopt a single child and who have qualified adoption expenses have the same dollar limitation as a married couple. The taxpayer is required to furnish the name, age, and Social Security number for each adopted child.

After December 31, 2012, the maximum amount of qualified adoption expenses will be \$6,000, and the credit will only be available for adoption of a special needs child. The income exclusion for employer-provided adoption expenses will expire on December 31, 2012.

Impact

Both the tax credit and employer exclusion may reduce the costs associated with adoptions through lower income taxes for taxpayers whose incomes fall below the adjusted gross income level where qualified expenses are zero (\$229,710 in tax year 2012). The tax credit is claimed by only a small proportion of taxpayers. For tax year 2009, less than .06% of tax returns claimed the adoption tax credit, with an average credit of \$3,451. One factor limiting the use of the credit in tax years prior to 2010 was the nonrefundable nature of the credit. The adoption tax credit was taken against tax liability after certain other nonrefundable tax credits such as the child tax credit and the education credits. The refundability of the credit for tax years 2010 and 2011 should expand usage of the adoption tax credit for those tax years.

Distribution by Income Class of the Adoption Credit Claimed in Tax Year 2009

Adjusted Gross Income Class (in thousands of \$)	Percentage Distribution
Below \$30	1.0
\$30 to \$50	10.2
\$50 to \$75	28.6
\$75 to \$100	24.1
\$100 to \$200	32.6
\$200 and over	3.5

Source: Data compiled from IRS, *Individual Complete Report. Publication 1304*, Table 3.3.

Rationale

An itemized deduction was provided by the Economic Recovery Tax Act of 1981 (P.L. 97-34) to encourage, through the reduction of financial burdens, taxpayers to legally adopt children with special needs. The deduction was repealed with passage of the Tax Reform Act of 1986 (P.L. 99-514). The rationale for repeal was the belief that the deduction provided the greatest benefit to higher-income taxpayers and that budgetary control over assistance payments could best be handled by agencies with responsibility and expertise in the placement of special needs children.

The tax credit and income tax exclusion provisions for qualified adoption expenses were enacted by Congress as part of the Small Business Job Protection Act of 1996 (P.L. 104-188). The credit was enacted because of the belief that the financial costs associated with the adoption process should not be a barrier to adoptions. The income tax exclusion was scheduled to expire on December 31, 2001.

The Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16) increased the maximum qualified adoption expenses for the tax credit and income exclusion to \$10,000 per eligible child, including special needs children. The act also extended the exclusion from income for employer-provided adoption assistance to December 31, 2010, and increased the beginning point of the income phase-out range to \$150,000. Congressional reports noted that both the credit and exclusion had been successful in reducing the after-tax cost of adoption to affected taxpayers. It was believed that increasing the size of both the credit and exclusion and expanding the number of taxpayers who qualify for the tax benefit would encourage more adoptions and allow more families to afford adoption. The legislation intended to make portions of the law permanent which were previously only temporary. Those provisions were to sunset after December 31, 2010, but were extended an additional two years, through 2012, by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312).

Changes made by the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147) were designed to clarify the provisions contained in the Economic Growth and Tax Relief Reconciliation Act of 2001. The Patient Protection and Affordable Care Act of 2010 (P.L. 111-5) increased the amount of qualified expenses for the adoption tax credit and made the credit refundable for tax years 2010 and 2011 only.

Assessment

While federal tax assistance has been provided in the past for the placement of special needs children, both the current law tax credit and exclusion are more broadly based. The provisions apply to the vast majority of adoptions (that are not by family members), and are not targeted only to the adoptions of special needs children.

It appears that the credit and income tax exclusion are designed to provide tax relief to moderate income families for the costs associated with adoptions and to encourage families to seek adoptable children. Taxpayers with adjusted gross incomes of less than \$189,710 (in tax year 2012) can receive the full tax exclusion or tax credit as long as they owe sufficient before-credit taxes. The phase-out applies only to those taxpayers whose adjusted gross incomes exceed \$189,710 (in tax year 2012). It would appear that the rationale for the cap is that taxpayers whose incomes exceed \$189,710 (in tax year 2012) have the resources for adoption so that the federal government does not need to provide special tax benefits for adoption to be affordable. The phase-out also reduces the revenue loss associated with these provisions.

The tax credit and income tax exclusion are in addition to a direct expenditure program which was first undertaken in 1986 to replace the tax deduction of that time. However, the need for a direct federal assistance program for adopting children with special needs may warrant reexamination. Under the tax provision's "double benefit" prohibition, the receipt of a grant will offset the tax credit or exclusion. The offset applies in all cases — including those for special needs children. Thus, it can be said that only in special needs adoption cases where a low or moderate income individual receives a grant greater than \$5,000 could the benefit from receiving the grant exceed that of the tax credit for the same amount of out-of-pocket expenses.

Some have assumed that tax credits and direct government grants are similar, since both may provide benefits at specific dollar levels. However, some argue that tax credits are often preferable to direct government grants, because they provide greater freedom of choice to the taxpayer. Such freedoms include, for example, the timing of expenditures or the amount to spend, while government programs typically have more definitive rules and regulations. Additionally, in the case of grants, absent a specific tax exemption, a grant may result in taxable income to the recipient.

Use of a tax mechanism does, however, add complexity to the tax system, since the availability of the credit and tax exclusion must be made known to all taxpayers, and space on the tax form must be provided (with accompanying instructions). The enactment of these provisions added to the administrative burdens of the Internal Revenue Service. A criticism of the tax deduction available under prior law was that the Internal Revenue Service had no expertise in adoptions and was therefore not the proper agency to administer a program of federal assistance for adoptions.

Selected Bibliography

Brazelton, Julia K. "Tax Implications of New Legislation Designed to Provide Adoption Incentives." *Taxes*, v. 75 (August 1997), pp. 426-436.

Cvach, Gary Q. and Martha Priddy Patterson. "Adoption Credit and Assistance Exclusion," *The Tax Adviser*, v. 28 (June 1997), pp. 359-360.

Foster, Sheila and Cynthia Bolt-Lee. "Changes in Tax Law Benefit Adopting Parents," *The CPA Journal*, v. 67 (October 1997), pp. 52-54.

Greenfield, Richard. "Tax Credits that are Not Child's Play," *The CPA Journal*, v. 69 (September 1999), pp. 61-62.

Henney, Susan M. "Adoption From Foster Care in a Sociocultural Context: An Analysis of Adoption Policies, Programs, and Legislation," Dissertation from The University of Texas at Austin, DAI, 62, no. 02A, (2000), 774 p.

Hollingsworth, Leslie Doty. "Adoption Policy in the United States: A Word of Caution," *Social Work*, v.45, no. 2 (Mar 2000), pp. 183-186.

Kanoy, Leah Carson, *The Effectiveness of the Internal Revenue Code's Adoption Tax Credit: Fostering the Nation's Future?*, University of Florida Journal of Law & Public Policy, v. 21 (2), Aug 2010, pp. 201-226.

Manewitz, Marilyn. "Employers Foster Assistance for Adoptive Parents," *HRMagazine*, v. 42 (May 1997), pp. 96-99.

O'Connor, M. "Federal Tax Benefits for Foster and Adoptive Parents and Kinship Caregivers: 2001 Tax Year," Seattle: Casey Family Programs, 2001, 19 p.

Scott, Christine. *Tax Benefits for Families: Adoption*, Library of Congress, Congressional Research Service Report RL33633, Washington, DC, 2011.

Smith. Sheldon R. "Tax Benefits for Adoption," *Tax Notes*, v. 95 (May 13, 2002), pp. 1065-1071.

— , Adoption Tax Benefits: Policy Considerations," *Tax Notes*, v. 91 (May 14, 2001), pp. 1159-1164.

Smith, Sheldon R. and Glade K. Tew. "The Adoption Exclusion: Complications for Employees," *Tax Notes*, v. 90 (Jan. 29, 2001), pp. 659-664.

- U.S. Congress, House Committee on Ways and Means. *Adoption Promotion and Stability Act of 1996*. House Report 104-542, Part 2, 104th Congress, 2d session. Washington, DC: U.S. Government Printing Office, May 3, 1996.
- U.S. General Accounting Office, Child and Family Services Reviews: Better Use of Data and Improved Guidance Could Enhance HHS's Oversight of State Performance, GAO Report GAO-04-333 (Washington: April 2004), pp. 1-55.

- , Foster Care: States Focusing on Finding Permanent Homes for Children, but Long-Standing Barriers Remain, GAO Testimony GAO-03-626T (Washington: April 8, 2003), pp. 1-24.
- U.S. Treasury Department, Office of Tax Analysis, Report to The Congress on Tax Benefits for Adoption, October 2000, pp. 1-69.
- U.S. Treasury Department, Office of Tax Analysis, *Federal Income Tax Benefits for Adoption: Use by Taxpayers*, 1999-2005, June 2007.

Education, Training, Employment, and Social Services: Social Services

EXCLUSION OF CERTAIN FOSTER CARE PAYMENTS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.4	•	0.4
2012	0.4	-	0.4
2013	0.4	-	0.4
2014	0.4	-	0.4
2015	0.4	-	0.4

Authorization

Section 131.

Description

Qualified foster care payments are those payments made in carrying out a state or local government foster care program. These qualified payments are excluded from the foster care provider's gross income. Qualified foster care payments are payments made by a state or local governmental agency or any qualified foster care placement agency for either of two purposes: (1) for caring for a "qualified foster individual" in the foster care provider's home. A "qualified foster individual" is defined as an individual placed by a qualified foster care placement agency, regardless of the individual's age at the time of placement: or (2) for additional compensation for additional care, provided in the foster care provider's home that is necessitated by an individual's physical, mental, or emotional handicap for which the state has determined that additional compensation is needed (referred to as a "difficulty of care" payment).

The exclusion for foster care payments is limited. Foster care payments, other than "difficulty of care" payments, are limited based on the number of foster care individuals in the provider's home over age 18. Foster care

payments made for more than five qualified foster care individuals aged 19 or older are not excluded from gross income.

For difficulty of care payments, there are two limitations. The first limitation is based on the number of foster care individuals under age 19. Difficulty of care payments made for more than 10 qualified foster care individuals under age 19 in the provider's home are not excluded from gross income. The second limitation is based on the number of foster care individuals in the provider's home over age 18. Difficulty of care payments made for more than five qualified foster care individuals aged 19 or older are not excluded from gross income.

The Internal Revenue Service has ruled that foster care payments excluded from income are not "earned income" for purposes of the Earned Income Tax Credit (EITC).

Impact

Both foster care and difficulty of care payments qualify for a tax exclusion. Since these payments are not counted as part of gross income, the tax savings reflect the marginal tax bracket of the foster care provider. Thus, the exclusion has greater value for taxpayers with higher incomes (and higher marginal tax rates) than for those with lower incomes (and lower marginal tax rates). In general, foster care providers who have other income, would receive a larger tax benefit than foster care providers without other income.

Rationale

In 1977, the Internal Revenue Service, in Revenue Ruling 77-280, 1977-2 CB 14, held that payments made by charitable child-placing agencies or governments (such as child welfare agencies) were reimbursements or advances for expenses incurred on behalf of the agencies or governments by the foster parents and therefore not taxable.

In the case of payments made to providers which exceed reimbursed expenses, the Internal Revenue Service ruled that the foster care providers were engaged in a trade or business with a profit motive and dollar amounts which exceed reimbursements were taxable income to the foster care provider.

The exclusion of foster care payments entered the tax law officially with the passage of the Periodic Payments Settlement Tax Act of 1982 (P.L.

97-473). That act codified the tax treatment of foster care payments and provided a tax exclusion for difficulty of care payments made to foster parents who provide additional services in their homes for physically, mentally, or emotionally handicapped children.

In the Tax Reform Act of 1986 (P.L. 99-514), the provision was modified to exempt all qualified foster care payments from taxation. This change was made to relieve foster care providers from the detailed record-keeping requirements of prior law. Congress feared that detailed and complex record-keeping requirements might deter families from accepting foster children or from claiming the full tax exclusion to which they were entitled

This act also extended the exclusion of foster care payments to adults placed in a taxpayer's home by a government agency.

Under a provision included in the Job Creation and Worker Assistance Act of 2002 (P.L. 107-147), the definition of "qualified foster care payments" was expanded to include for-profit agencies contracting with state and local governments to provide foster home placements. The change was made in recognition that states often contract services out to for-profit firms and that the tax code had not recognized the role of private agencies in helping the states provide foster care services for placement and delivery of payments. The provisions are thought to reduce complexity with the hope that simpler rules may encourage more families to provide foster care services.

Assessment

It is generally conceded that the tax law treatment of foster care payments provides administrative convenience for the Internal Revenue Service, and prevents unnecessary accounting and record-keeping burdens for foster care providers. The trade-off is that to the extent foster care providers receive payments over actual expenses incurred, monies which should be taxable as income are provided an exemption from individual income and payroll taxation.

A study by the General Accounting Office (1989) had reported a shortage of foster parents. Included among the reasons for the shortage were the low reimbursement rates paid to foster care providers, with some providers dropping out of the program because the low payment rates did not cover actual costs. More recently, the Department of Human Services (2005)

has reported a lack of permanent homes for older youths in the foster care system. Thus, to the extent that the exclusion promotes participation in the program, it is beneficial from a public policy viewpoint. Data from the Department of Health and Human Services indicates that between FY1999 and FY2011, the number of children in foster care awaiting adoption has declined by 29.4%.

Selected Bibliography

- U. S. Congress, Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514. Washington, DC: U.S. Government Printing Office, May 4, 1987, pp. 1346-1347.
- U.S. Department of Health and Human Services, Administration for Children & Families, Children in Public Foster Care Waiting to be Adopted: FY 1999 thru FY 2006, March, 2008, and Adoption and Foster Care Analysis and Reporting System (AFCARS) Report #19, July 2012.
- , Children's Bureau, A report to Congress on adoption and other permanency outcomes for children in foster care: Focus on older children. Washington, DC, 2005.
- U.S. General Accounting Office, Foster Parents: Recruiting and Preservice Trainings Practices Need Evaluation, GAO Report GAO/HRD 89-86, August, 1989.
- , Child and Family Services Reviews: Better Use of Data and Improved Guidance Could Enhance HHS's Oversight of State Performance, GAO Report GAO-04-333 (Washington: April 2004), pp. 1-55.
- , Foster Care: States Focusing on Finding Permanent Homes for Children, but Long-Standing Barriers Remain, GAO Report GAO-03-626T (Washington: April 8, 2003), pp. 1-24.

Education, Training, Employment, and Social Services: Social Services

DEDUCTION FOR CHARITABLE CONTRIBUTIONS, OTHER THAN FOR EDUCATION AND HEALTH

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	29.1	0.9	30.0
2012	31.5	0.9	32.4
2013	37.3	0.9	38.2
2014	41.0	0.9	41.9
2015	42.7	1.0	43.7

Note: The cost would increase slightly if the expiring charitable provisions that expired at the end of 2011 were extended.

Authorization

Section 170 and 642(c).

Description

Subject to certain limitations, charitable contributions may be deducted by individuals, corporations, and estates and trusts. The contributions must be made to specific types of organizations: charitable, religious, educational, and scientific organizations, non-profit hospitals, public charities, and federal, state, and local governments.

Individuals who itemize may deduct qualified contributions of up to 50 percent of their adjusted gross income (AGI) (30 percent for gifts of capital gain property). For contributions to non-operating foundations and organizations, deductibility is limited to the lesser of 30 percent of the taxpayer's contribution base, or the excess of 50 percent of the contribution base for the tax year over the amount of contributions which qualified for the 50 percent deduction ceiling (including carryovers from previous years).

Gifts of capital gain property to these organizations are limited to 20 percent of AGL

If a contribution is made in the form of property, the deduction depends on the type of taxpayer (*i.e.*, individual, corporate, etc.), recipient, and purpose.

The maximum amount deductible by a corporation is 10 percent of its adjusted taxable income. Adjusted taxable income is defined to mean taxable income with regard to the charitable contribution deduction, dividends-received deduction, any net operating loss carryback, and any capital loss carryback. Excess contributions may be carried forward for five years. Amounts carried forward are used on a first-in, first-out basis after the deduction for the current year's charitable gifts have been taken. Typically, a deduction is allowed only in the year in which the contribution occurs. An accrual-basis corporation, however, is allowed to claim a deduction in the year preceding payment if its board of directors authorizes a charitable gift during the year and payment is scheduled by the 15th day of the third month of the next tax year.

As a result of the enactment of the American Jobs Creation Act of 2004, P.L. 108-357, donors of non-cash charitable contributions face increased reporting requirements. For charitable donations of property valued at \$5,000 or more, donors must obtain a qualified appraisal of the donated property. For donated property valued in excess of \$500,000, the appraisal must be attached to the donor's tax return. Deductions for donations of patents and other intellectual property are limited to the lesser of the taxpayer's basis in the donated property or the property's fair market value. Taxpayers can claim additional deductions in years following the donation based on the income the donated property provides to the donee. The 2004 act also mandates additional reporting requirements for charitable organizations receiving vehicle donations from individuals claiming a tax deduction for the contribution, if it is valued in excess of \$500.

Taxpayers are required to obtain written substantiation from a donee organization for contributions which exceed \$250. This substantiation must be received no later than the date the donor-taxpayer filed the required income tax return. Donee organizations are obligated to furnish the written acknowledgment when requested with sufficient information to substantiate the taxpayer's deductible contribution.

The Pension Protection Act of 2006 (P.L. 109-280) included several provisions that temporarily expand charitable giving incentives. The provisions, effective after December 31, 2005 and before January 1, 2008, included enhancements to laws governing non-cash gifts and tax-free distributions from individual retirement plans for charitable purposes. The most significant in dollar value was the provision that allowed individuals to make a direct charitable contribution to charity from their individual retirement accounts without including the income in the tax return. This treatment benefits those who do not itemize deductions by allowing donations that would otherwise increase income to be excluded. This treatment also reduces the adjusted gross income amounts which can trigger taxation of Social Security benefits. Other provisions allow more generous treatment of contributions of conservation easements, and of contributions of food, book and computer inventory.

The 2006 law also tightened (1) rules governing charitable giving in certain areas, including gifts of taxidermy, contributions of clothing and household items, contributions of fractional interests in tangible personal property, and (2) record-keeping and substantiation requirements for certain charitable contributions.

Temporary charitable giving incentives were further extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008 and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312).

Impact

The deduction for charitable contributions reduces the net cost of contributing. In effect, the federal government provides the donor with a corresponding grant that increases in value with the donor's marginal tax bracket. Those individuals who use the standard deduction or who pay no taxes receive no benefit from the provision.

A limitation applies to the itemized deductions of high-income taxpayers. Under this provision, initially a phaseout applied which reduced itemized deductions by 3 percent of the amount by which a taxpayer's adjusted gross income (AGI) exceeds an inflation adjusted dollar amount (\$166,800 in 2009). This phaseout is, in turn being phased out, and in 2009 is reduced by two thirds. It is eliminated in 2010, but after that year the elimination of the phaseout expires, unless extended.

The table below provides the distribution of all charitable contributions. In general, contributions outside of those to educational and health organizations are relatively less concentrated in the higher income categories.

Distribution by Income Class of the Tax Expenditure for Charitable Contributions, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	0.0
\$20 to \$30	0.2
\$30 to \$40	0.5
\$40 to \$50	0.9
\$50 to \$75	4.9
\$75 to \$100	6.9
\$100 to \$200	28.2
\$200 and over	58.4

Rationale

This deduction was added by passage of the War Revenue Act of October 3, 1917. Senator Hollis, the sponsor, argued that high wartime tax rates would absorb the surplus funds of wealthy taxpayers, which were generally contributed to charitable organizations.

The provisions enacted in 2004 resulted from Internal Revenue Service and congressional concerns that taxpayers were claiming inflated charitable deductions, causing the loss of federal revenue. In the case of vehicle donations, concern was expressed about the inflation of deductions. GAO reports published in 2003 indicated that the value of benefit to charitable organizations from donated vehicles was significantly less than the value claimed as deductions by taxpayers. The 2006 enactments were, in part, a result of continued concerns from 2004.

The 2006 legislation also provided for some temporary additional benefits which are part of the "extenders." These temporary provisions were further extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). The 2006 act also added restrictions on donor-advised funds (where sponsors receive contributions and then make donations advised by the original contributor) and certain supporting organizations (organizations that receive donations used to support other active charities).

Assessment

Supporters note that contributions finance socially desirable activities. Further, the federal government would be forced to step in to assume some activities currently provided by charitable, nonprofit organizations if the deduction were eliminated. Public spending, however, might not be available to make up all of the difference. In addition, many believe that the best method of allocating general welfare resources is through a dual system of private philanthropic giving and governmental allocation.

Economists have generally held that the deductibility of charitable contributions provides an incentive effect which varies with the marginal tax rate of the giver. There are a number of studies that find significant behavioral responses, although a study by Randolph suggests that such measured responses may largely reflect transitory timing effects. Most recent estimates indicate that the induced giving is less than the revenue cost.

Types of contributions may vary substantially among income classes. Contributions to religious organizations are far more concentrated at the lower end of the income scale than contributions to hospitals, the arts, and educational institutions, with contributions to other types of organizations falling between these levels. The volume of donations to religious organizations, however, is greater than to other organizations as a group. For example, the Giving USA Foundation and its research partner, the Center on Philanthropy at Indiana University, estimated that giving to religious institutions amounted to 32 percent of all contributions in calendar year 2011. This was in comparison to the next largest component of charitable giving recipients, educational institutions, at 13 percent.

Those who support eliminating this deduction note that deductible contributions are made partly with dollars which are public funds. They feel that helping out private charities may not be the optimal way to spend government money.

Opponents further claim that the present system allows wealthy taxpayers to indulge special interests and hobbies. It is generally argued that the charitable contributions deduction is difficult to administer and adds complexity to the tax code.

Selected Bibliography

Ackerman, Deena, and Gerald Auten, "Tax Expenditures for Noncash Charitable Contributions," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, v. 64, Pt. 2, June 2011, pp. 651-688.

Aprill, Ellen P. "Churches, Politics, and the Charitable Contribution Deduction," *Boston College Law Review*, v. 42, July 2001, pp. 843-873.

Auten, Gerald E., Sieg Holger, and Charles T. Clotfelter, "Charitable Giving, Income and Taxes: An Analysis of Panel Data," *American Economic Review*, v. 92, March 2002, pp. 371-382.

Bakija, Jon. "Distinguishing Transitory and Permanent Price Elasticities of Charitable Giving with Pre-Announced Changes in the Tax Law," October 2000, Mimeo.

Bakija, Jon and Bradley T. Heim. "How Does Charitable Giving Respond to Incentives and Income? New Estimates from Panel Data," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, v. 64, Pt. 2, June 2011, pp. 615-650.

Bakija, Jon and Rob McClelland, "Timing vs. Long-Run Charitable Giving Behavior: Reconciling Divergent Approaches and Estimates," December 2004.

Boatsman, James R. and Sanjay Gupta. "Taxes and Corporate Charity: Empirical Evidence From Micro-Level Panel Data," *National Tax Journal*, v. 49, June 1996, pp. 193-213.

Bradley, Ralph, Steven Holder, and Robert McClelland, "A Robust Estimation of the Effect of Taxes on Charitable Contributions," *Contemporary Economic Policy*, v. 23, October 2005, pp. 545-554.

Broman, Amy J. "Statutory Tax Rate Reform and Charitable Contributions: Evidence from a Recent Period of Reform," *Journal of the American Taxation Association*, v. 11, Fall 1989, pp. 7-21.

Brown, Melissa S., Managing Editor *Giving USA 2004, The Annual Report on Philanthropy for the Year 2003*, American Association of Fund-Raising Counsel Trust for Philanthropy. Indiana University-Purdue University Indianapolis: 2004.

Buckles, Johnny Rex. "The Case for the Taxpaying Good Samaritan: Deducting Earmarked Transfers to Charity under Federal Income Tax Law, Theory and Policy," *Fordham Law Review*, v. 70, March 2002, pp. 1243-1339.

Cain, James E., and Sue A. Cain. "An Economic Analysis of Accounting Decision Variables Used to Determine the Nature of Corporate Giving," *Quarterly Journal of Business and Economics*. v. 24, Autumn 1985, pp. 15-28.

Center on Philanthropy, *The 2008 Study of High Net Worth Philanthropy*, Sponsored by Bank of America, Indiana University-Purdue University, Indianapolis, March 2009.

— . Patterns of Household Charitable Giving by Income Group, 2005, prepared for Google, Indiana University, Summer 2007.

Clotfelter, Charles T. "The Impact of Tax Reform on Charitable Giving: A 1989 Perspective." In *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, edited by Joel Slemrod, Cambridge, MA: MIT Press, 1990.

— . "The Impact of Fundamental Tax Reform on Non Profit Organizations." In *Economic Effects of Fundamental Tax Reform*, eds. Henry J. Aaron and William G. Gale. Washington, DC: Brookings Institution, 1996.

Colombo, John D. "The Marketing of Philanthropy and the Charitable Contributions Deduction: Integrating Theories for the Deduction and Tax Exemption," *Wake Forest Law Review*, v. 36, fall 2001, pp. 657-703.

Crimm, Nina J. "An Explanation of the Federal Income Tax Exemption for Charitable Organizations: A Theory of Risk Compensation," *Florida Law Review*, v. 50, July 1998, pp. 419-462.

Cromer, Mary Varson. "Don't Give Me That!: Tax Valuation of Gifts to Art Museums," *Washington and Lee Law Review*, v. 6, spring 2006, pp. 777-809.

Eason, Pat, Raymond Zimmermann, and Tim Krumwiede. "A Changing Environment in the Substantiation and Valuation of Charitable Contributions," *Taxes*, v. 74, April 1996, pp. 251-259.

Feenberg, Daniel. "Are Tax Price Models Really Identified: The Case of Charitable Giving," *National Tax Journal*, v. 40, December 1987, pp. 629-633.

Eckel, Catherine C. and Philip J. Grossman, "Subsidizing Charitable Contributions: A Natural Field Experiment," *Experimental Economics*, Vol. 11, March 2008, pp. 234-252.

Feldman, Naomi. "Time is Money: Choosing Between Charitable Activities," *American Economic Journal: Economic Policy*, v.2, No. 1, 2010, pp. 103-130.

Feldman, Naomi and James Hines, Jr. "Tax Credits and Charitable Contributions in Michigan," University of Michigan, Working Paper, October 2003.

Fisher, Linda A. "Donor-Advised Funds: The Alternative to Private Foundations," *Cleveland Bar Journal*, v. 72, July/August 2001, pp. 16-17.

Fullerton, Don. *Tax Policy Toward Art Museums*. Cambridge, MA: National Bureau of Economic Research, 1990 (Working Paper no. 3379).

Gergen, Mark P. "The Case for a Charitable Contributions Deduction," *Virginia Law Review*, v. 74, November 1988, pp. 1393-1450.

Gravelle, Jane. *Economic Analysis of the Charitable Contribution Deduction for Nonitemizers*, Library of Congress, Congressional Research Service Report RL31108, April 29, 2005.

Gravelle, Jane and Donald Marples, Charitable Contributions: The Itemized Deduction Cap and Other FY2011 Budget Options, Library of Congress, Congressional Research Service Report R40518, March 18, 2010.

Gravelle, Jane G. and Molly Sherlock, An Analysis of Charitable Giving and Donor Advised Funds, Library of Congress, Congressional Research Service Report R45957, July 11, 2012.

— . Tax Issues Relating to Charitable Contributions and Organizations, Library of Congress, Congressional Research Service Report RL34608, July 11, 2012.

Green, Pamela and Robert McClelland. "Taxes and Charitable Giving," *National Tax Journal*, v. 54, Sept. 2001, pp. 433-450.

Gruber, Jonathan. "Pay or Pray? The Impact of Charitable Subsidies on Religious Attendance," *National Bureau of Economic Research Working Paper*, 10374, March, 2004, pp. 1-40.

Halperin, Dan. "A Better Way to Encourage Gifts of Conservation Easements," *Tax Notes*, July 16, 2012, pp. 307-314.

Izzo, Todd. "A Full Spectrum of Light: Rethinking the Charitable Contribution Deduction," *University of Pennsylvania Law Review*, v. 141. June 1993, pp. 2371-2402.

Jacobson, Rachel. "The Car Donation Program: Regulating Charities and For-Profits," *The Exempt Organization Tax Review*, v. 45, August 2004, pp. 213-229.

Jones, Darryll K. "When Charity Aids Tax Shelters," *Florida Tax Review*, v. 4 2001, pp. 770-830.

Joulfaian, David and Mark Rider. "Errors-In-Variables and Estimated Income and Price Elasticities of Charitable Giving," *National Tax Journal*, v. 57, March 2004, pp. 25-43.

Kahn, Jefferey H. "Personal Deductions: A Tax "Ideal" or Just Another "Deal"?," Law Review of Michigan State University, v. 2002, Spring 2002, pp. 1-55.

Karlan, Dean and John A. List, 2007. "Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment," *American Economic Review*, Vol. 97, December 2007, pp. 1774-1793.

Krumwiede, Tim, David Beausejour, and Raymond Zimmerman. "Reporting and Substantiation Requirements for Charitable Contributions," *Taxes*, v. 72, January 1994, pp. 14-18.

Liddell, Pearson and Janette Wilson, "Individual Noncash Contributions, 2008," (2011), SOI Bulletin, Winter 2011.

Omer, Thomas C. "Near Zero Taxable Income Reporting by Nonprofit Organizations," *Journal of American Taxation Association*, v. 25, fall 2003, pp. 19-34.

O'Neil. Cherie J., Richard S. Steinberg, and G. Rodney Thompson. "Reassessing the Tax-Favored Status of the Charitable Deduction for Gifts of Appreciated Assets," *National Tax Journal*, v. 4, June 1996, pp. 215-233.

Randolph, William C. "Charitable Deductions," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

— . "Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions," *Journal of Political Economy*, v. 103, August 1995, pp. 709-738.

Robinson, John R. "Estimates of the Price Elasticity of Charitable Giving: A Reappraisal Using 1985 Itemizer and Nonitemizer Charitable Deduction Data," *Journal of the American Taxation Association*. v. 12, fall 1990, pp. 39-59.

Rondeau, Daniel and John A. List, Matching and Challenge Gifts to Charity: Evidence from Laboratory and Natural Field Experiments, National Bureau of Economic Research Working Paper 13728, January 2008.

Sherlock, Molly and Jane Gravelle, *An Overview of the Charitable and Nonprofit Sector*, Library of Congress, Congressional Research Service Report R40919, November 17, 2009.

Smith, Bernard. "Charitable Contributions: A Tax Primer," *Cleveland Bar Journal*, v. 72, Nov. 2000, pp. 8-11.

Stokeld, Fred, "ETI Repeal Bill Would Tighten Rules on Vehicle, Patent Donations," *Tax Notes*, October 18, 2004, pp. 293-294.

Teitell, Conrad. "Tax Primer on Charitable Giving," *Trust & Estates*, v. 139, June 2000, pp. 7-16.

Tiehen, Laura. "Tax Policy and Charitable Contributions of Money." *National Tax Journal*, v. 54, Dec 2001, pp. 707-723.

Tobin, Philip T. "Donor Advised Funds: A Value-Added Tool for Financial Advisors," *Journal of Practical Estate Planning*, v. 3, October/November 2001, pp. 26-35, 52.

U.S. Congress, Congressional Budget Office. *Budget Options*. See Rev-12, Limit Deductions for Charitable Giving to the Amount Exceeding 2 Percent of Adjusted Gross Income. Washington, DC: Government Printing Office, February 2005, p 281.

U.S. Congress, Government Accountability Office. Vehicle Donations: Benefits to Charities and Donors, but Limited Program Oversight, GAO

- Report GAO-04-73, Washington, DC: U.S. Government Printing Office, November 2003, pp. 1-44.
- . Vehicle Donations: Taxpayer Considerations When Donating Vehicles to Charities, GAO Report GAO-03-608T, Washington, DC: U.S. Government Printing Office, April 2003, pp. 1-15.
- U.S. Congress, Joint Committee on Taxation, Estimated Revenue Effects Of The Revenue Provisions Contained In H.R. 4213, The "American Jobs And Closing Tax Loopholes Act Of 2010, JCX-30-10, May 28, 2010.
- Technical Explanation Of H.R. 4, The "Pension Protection Act Of 2006," as Passed by the House on July 28, 2006, and as Considered by the Senate on August 3, 2006, JCX-38-06, Washington, DC: U.S. Government Printing Office, August 3, 2006, pp. 1-386.
- . Senate Committee on Finance. Staff Discussion Draft: Proposals for Reforms and Best Practices in the Area of Tax-Exempt Organizations, Washington, DC: U.S. Government Printing Office, June 22, 2004, pp. 1-19.
- U.S. Department of Treasury. "Charitable Giving Problems and Best Practices," *testimony given by Mark Everson, Commissioner of Internal Revenue*, Internal Revenue Service, IR-2004-81, Washington, DC: U.S. Government Printing Office, June 22, 2004, pp. 1-17.
- . Report to Congress on Supporting Organizations and Donor Advised Funds December 2011.

Wittenbach, James L. and Ken Milani. "Charting the Interacting Provisions of the Charitable Contributions Deductions for Individuals," *Taxation of Exempts*, v. 13, July/August 2001, pp. 9-22.

Yetman, Michelle H. and Robert J. Yetman. "The Effect of Nonprofits' Taxable Activities on the Supply of Private Donations," *National Tax Journal*, v. 56, March 2003, pp. 243-258.

— . "Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions," *Journal of Political Economy*, v. 103, August 1995, pp. 709-738.

Education, Training, Employment, and Social Services: Social Services

TAX CREDIT FOR DISABLED ACCESS EXPENDITURES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(¹)
2012	$\binom{1}{2}$	$\binom{1}{2}$	(1)
2013	(¹)	(1)	(1)
2014	(¹)	(¹)	(1)
2015	(¹)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 44.

Description

A non-refundable tax credit equal to 50 percent of eligible access expenditures is available to small businesses, defined as businesses with gross receipts of less than \$1 million or with no more than 30 full-time employees. Access expenditures in excess of \$250, and up to \$10,250, are eligible for the credit. Thus, the maximum tax credit is \$5,000. The expenditures must be incurred to make a business accessible to disabled individuals.

The credit is included as a general business credit and is subject to present-law limits. No increase in the property's adjusted basis is allowable to the extent of the credit. The credit may not be carried back to tax years before the date of enactment. No further deduction or credit is permitted for amounts used under a disabled access credit. In particular, expenditures used to claim the tax credit may not also be used to expense costs under section 190. (See the entry on "Expensing of Costs to Remove Architectural and Transportation Barriers to the Handicapped and Elderly.")

In 2002, the Internal Revenue Service (IRS) issued an alert (Internal Revenue News Release 2002-17) to taxpayers concerning a fraudulent disabled-access credit scheme. That scheme involved the sale of coin-operated pay telephones to individual investors. Investors were incorrectly advised that they were entitled to claim the disabled access credit of up to \$5,000 on their individual income tax returns because the telephone was equipped with a volume control. The IRS disallows the credit 1) if it is claimed by a taxpayer who is not operating as a business or who does not qualify as an eligible small business; and 2) if the purchase does not make a business accessible to disabled individuals. The IRS has continued to issue the alert, including a notice in March 2006 (Internal Revenue News Release IR-2006-45).

On its list of examples of frivolous tax provisions, the IRS includes a taxpayer claiming the section 44 disabled access credit to reduce tax or generate a refund, for example, by purportedly having purchased equipment or services for an inflated price (which may or may not have been actually paid), even though it is apparent that the taxpayer did not operate a small business that purchased the equipment or services to comply with the requirements of the Americans with Disabilities Act (item 26 in Internal Revenue Service Notice 2010-33, April 7, 2010; also published in 2010-17 Internal Revenue Bulletin 609).

Impact

The provision lowers the after-tax cost to small businesses of expenditures to remove architectural, communication, physical, or transportation access barriers for persons with disabilities. The tax credit allows taxpayers to reduce their tax liability by 50% of up to \$10,000 of qualified expenditures.

This tax treatment has two advantages relative to the standard tax treatment of claiming a depreciation deduction for capital expenditures – a higher tax rate and a larger amount that can be deducted for the year of the expenditure. First, the 50-percent credit provides a greater reduction in taxes than the business owner would receive by deducting the access expenditures at a marginal tax rate of 35 percent (the maximum rate for individuals in 2010) or less. Second, the expenditure can be expensed, or deducted in full, in the year of the expenditure, rather than being depreciated over a number of years. The direct beneficiaries of this provision are small businesses than making access expenditures that qualify for the credit.

Rationale

The disabled access tax credit was introduced by the Revenue Reconciliation Act of 1990 (P.L. 101-508). Its purpose was to provide financial assistance to small businesses for complying with the Americans With Disabilities Act of 1990 (ADA, P.L. 101-336). That act requires restaurants, hotels, and department stores that are either newly constructed or renovated to provide facilities that are accessible to persons with disabilities. It also calls for the removal of existing barriers, where readily achievable, in previously built facilities.

While the provision is intended to encourage compliance with the ADA, subsequent access improvements are not covered by the provision. A 2004 IRS ruling (Internal Revenue Service Memorandum 2004-11042) clarified that eligible small businesses that are already in compliance with the ADA may not claim the disabled access credit for expenditures paid or incurred for the purpose of upgrading or improving disabled access.

Assessment

Because the tax credit is non-refundable, a business's ability to benefit from the credit depends on whether its income tax liability is large enough to take full advantage of the credit.

The tax credit may not be the most efficient method for accomplishing the objective. Some of the tax benefit may go for expenditures that the small business would have made even without the credit. There is arguably no general economic justification for special treatment of small businesses relative to large businesses.

On the other hand, the requirements of the Americans With Disabilities Act imposed capital expenditure requirements that may be a hardship to small businesses. The ADA rules were designed primarily to accomplish the social objective of accommodating people with disabilities. Proponents of the credit argue that this social objective warrants a tax subsidy.

Selected Bibliography

Bullock, Reginald Jr. "Tax Provisions of the Americans with Disabilities Act," *The CPA Journal*, Vol. 63, No. 2 (February 1993), pp. 58-59.

Cook, Ellen D., Anne K. Judice, and J. David Lofton. "Tax Aspects of Complying with the Americans with Disabilities Act," *The CPA Journal*, Vol. 66 (May 1996), pp. 38-42.

Cook, Ellen D. and Anita C. Hazelwood. "Tax Breaks Cut the Cost of Americans With Disabilities Act Compliance," *Practical Tax Strategies*, Vol. 69 (Sept 2002), pp. 145-155.

Eisenstadt, Deborah E. "Current Tax Planning for Rehabilitation Expenses, Low-Income Housing, and Barrier Removal Costs," *Taxation for Accountants*, Vol. 34 (April 1985), pp. 234-238.

Ellentuck, Albert B. "Credit for Compliance," *Nation's Business*, v. 79 (April 1991), p. 60.

Jackson, Pamela J. Business Tax Provisions that Benefit Persons with Disabilities, Library of Congress, Congressional Research Service Report RS21006, Washington, DC, June 28, 2005.

Lebow, Marc I., Wayne M. Schell, and P. Michael McLain. "Not All Expenditures to Aid the Disabled Qualify for Credit," *The Tax Adviser*, Vol. 32 (December 2001), pp. 810-811.

Education, Training, Employment, and Social Services: Social Services

TAX CREDIT FOR CHILDREN UNDER AGE 17

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	56.4	-	56.4
2012	56.9	•	56.9
2013	25.7	-	25.7
2014	15.1	-	15.1
2015	14.9	-	14.9

Note: The child tax credit reverts back to pre-2001 law and rules after 2012, which is reflected in these estimates.

Authorization

Section 24.

Description

Families with qualifying children are allowed a credit against their federal individual income tax of \$1,000 per qualifying child.

To qualify for the credit the child must be an individual for whom the taxpayer can claim a dependency exemption. That means the child must be the son, daughter, grandson, granddaughter, stepson, stepdaughter or an eligible foster child of the taxpayer. The child must be under the age of 17 at the close of the calendar year in which the taxable year of the taxpayer begins.

The child tax credit is phased out for taxpayers whose modified adjusted gross incomes (AGIs) exceed certain thresholds. For married taxpayers filing joint returns, the phaseout begins at modified AGI levels in excess of \$110,000, for married couples filing separately the phaseout begins at modified AGI levels in excess of \$55,000; for single individuals filing as

either heads of households or as singles the phaseout begins at modified AGI levels in excess of \$75,000. The child tax credit is phased out by \$50 for each \$1,000 (or fraction thereof) by which the taxpayer's AGI exceeds the threshold amounts. Neither the child tax credit amount nor the phaseout thresholds is indexed for inflation.

The child tax credit is refundable. For families with less than three qualifying children, the maximum refundable credit cannot exceed 15 percent of a taxpayer's earned income in excess of a given income threshold. For 2009-2012, the threshold is \$3,000 under current law due to indexation for inflation.

For families with three or more children, the maximum refundable credit is limited to the extent that the taxpayer's Social Security payroll taxes and income taxes exceed the taxpayer's earned income tax credit or to the extent of 15 percent of their earned income in excess of income threshold. In these cases, the taxpayer can use whichever method results in the largest refundable credit.

The child tax credit can be applied against both a taxpayer's regular income tax and alternative minimum tax liabilities.

Impact

The child tax credit will benefit all families with qualifying children whose incomes fall below the AGI phaseout ranges.

Distribution by Inco	me Cla	iss c	of
Tax Credit for Children	Under	17,	<i>2010</i>

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	2.1
\$10 to \$20	10.3
\$20 to \$30	11.6
\$30 to \$40	11.6
\$40 to \$50	10.6
\$50 to \$75	20.2
\$75 to \$100	14.6
\$100 to \$200	18.9
\$200 and over	0.0

Rationale

The child tax credit was enacted as part of the Taxpayer Relief Act of 1997. Initially, for tax year 1998, families with qualifying children were allowed a credit against their federal income tax of \$400 for each qualifying child. For tax years after 1998, the credit increased to \$500 for each qualifying child. The credit was refundable, but only for the families with three or more children.

Congress indicated that the tax structure at that time did not adequately reflect a family's reduced ability to pay as family size increased. The decline in the real value of the personal exemption over time was cited as evidence of the tax system's failure to reflect a family's ability to pay. Congress further determined that the child tax credit would reduce a family's tax liabilities, would better recognize the financial responsibilities of child rearing, and would promote family values.

The amount and coverage of the child tax credit was substantially increased by the Economic Growth and Tax Relief Reconciliation Act of 2001 and subsequent legislation. Proponents of this increase argued that a \$500 child tax credit was inadequate. It was argued that the credit needed to be increased in order to better reflect the reduced ability to pay taxes of

families with children. Furthermore, many felt that the credit should be refundable for all families with children.

The 2001 Act increased the child tax credit to \$1,000 with the increase scheduled to be phased in between 2001and 2010. It also made the credit partially refundable for families with fewer than three children. The Jobs and Growth Tax Relief Reconciliation Act of 2003 increased the child tax credit to \$1,000 for tax years 2003 and 2004. The Working Families Tax Relief Act of 2004 effectively extended the \$1,000 child tax credit through 2010. The 2004 Act also authorized inclusion of combat pay, which is not subject to income tax, in earned income for purposes of calculating the refundable portion of the credit, which may increase the amount of the credit.

The Katrina Emergency Tax Relief Act of 2005 (P.L. 109-73) allowed taxpayers affected by hurricanes Katrina, Rita, and Wilma to use their prior year's (2004) earned income to compute the amount of their 2005 refundable child credit.

The changes made by the 2001 act were scheduled to expire at the end of 2010 but were extended for two years by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010. For tax years beyond 2012, the child tax credit will revert to its pre-2001 law levels and refundability rules.

Assessment

Historically, the federal income tax has differentiated among families of different size through the combined use of personal exemptions, child care credits, standard deductions, and the earned income tax credit. These provisions were modified over time so that families of differing sizes would not be subject to federal income tax if their incomes fell below the poverty level.

The child tax credit enacted as part of the Taxpayer Relief Act of 1997, and expanded in the 2001, 2003, and 2004 tax Acts, represents a departure from past policy practices because it is not designed primarily as a means of differentiating between low-income families of different size, but rather is designed to provide general tax reductions to middle income families. The empirical evidence, however, suggests that for families in the middle and higher income ranges, the federal tax burden has remained relatively constant over the past 15 years.

Selected Bibliography

Crandall-Hollick, Margot. *The Child Tax Credit: Current Law and Legislative History*. Library of Congress. Congressional Research Service Report R41873, June 17, 2011.

- —. The Child Tax Credit: Economic Analysis and Policy Options. Library of Congress, Congressional Research Service Report R41935, July 25, 2011.
- —. The Impact of Refundable Tax Credits on Poverty. Library of Congress, Congressional Research Service Report R41999, September 14, 2011.

Esenwein, Gregg. "Child Tax Credit," *Encyclopedia of Taxation and Tax Policy*, Ed. Joseph J. Cordes, Robert D. Ebel and Jane G. Gravelle. The Urban Institute, Washington D.C. 2005.

Gravelle, Jane G. and Jennifer Gravelle. "Horizontal Equity and Family Tax Treatment: The Orphan Child of Tax Policy". *National Tax Journal*, September 2006.

Burman, Leonard E. and Laura Wheaton, "Who Gets the Child Tax Credit?" Tax Notes, October 17, 2005.

Shvedov, Maxim. *The Child Tax Credit*, Library of Congress. Congressional Research Service Report RL34715, 2006.

Esenwein, Gregg A. *The Child Tax Credit After the Economic Growth and Tax Relief Reconciliation Act of 2001*. Library of Congress, Congressional Research Service Report RS20988, 2008.

- U.S. Department of the Treasury, Internal Revenue Service. *Child Tax Credit*. Publication 972, (Washington, DC, 2005).
- U.S. Congress, Joint Committee on Taxation. *Technical Explanation of H.R.* 3768, The "Katrina Emergency Tax Relief Act of 2005." JCX-69-05. September 2005.
- . Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in the 107th Congress, January 2003.
- , Joint Committee on Taxation. Summary of the Provisions Contained in the Conference Agreement for H.R. 1836, The Economic Growth and Tax Relief Reconciliation Act of 2001. May 2001.
- . House of Representatives. *Ticket to Work and Work Incentives Improvement Act of 1999*. Conference Report 106-478, November 1999.
- . Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in 1997, December 1997.
- . House of Representatives. *Ticket to Work and Work Incentives Improvement Act of 1999*, Conference Report 106-478, November 1999.
- . Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in 1997, December 1997.

Health

HEALTH SAVINGS ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.2		1.2
2012	1.3	_	1.3
2013	1.8	-	1.8
2014	2.1	-	2.1
2015	2.3	-	2.3

Authorization

Section 223.

Description

Health Savings Accounts (HSAs) are a tax-advantaged way that people can pay for unreimbursed medical expenses such as deductibles, copayments, and services not covered by insurance. Eligible individuals can establish and fund these accounts when they have qualifying high deductible health insurance (insurance with a deductible of at least \$1,200 for single coverage and \$2,400 for family coverage, plus other criteria described below) and no other health care coverage, with some exceptions. The minimum deductible levels do not apply to preventive care, which the IRS has defined by regulation. Prescription drugs are not exempt from the deductibles unless they are for preventive care. Qualifying health plans cannot have limits on out-of-pocket expenditures that exceed \$6,050 for single coverage and \$12,100 for family coverage. (The dollar amounts in this and other paragraphs in this section are for 2012.)

The annual contribution limit for single coverage is \$3,100 and the annual contribution limit for family coverage is \$6,250. Individuals who are at least 55 years of age but not yet enrolled in Medicare may make an additional contribution of \$1,000 each year. Individuals may deduct their HSA contributions from gross income in determining their taxable income.

Employer contributions are excluded from income and employment taxes of the employee and from employment taxes of the employer.

Individuals do not lose their HSA or the right to access it by obtaining insurance with a low deductible; they simply cannot make further contributions until they become eligible once again. Individual members of a family may have their own HSA, provided they each meet the eligibility rules. They can also be covered through the HSA of someone else in the family; for example, a husband may use his HSA to pay expenses of his spouse even though she has her own HSA.

Withdrawals from HSAs are exempt from federal income taxes if used for qualified medical expenses, with the exception of health insurance premiums. However, payments for four types of insurance are considered to be qualified expenses: (1) long-term care insurance, (2) health insurance premiums during periods of continuation coverage required by federal law (e.g., COBRA), (3) health insurance premiums during periods the individual is receiving unemployment compensation, and (4) for individuals age 65 years and older, any health insurance premiums (including Medicare Part B premiums) other than a Medicare supplemental policy.

Withdrawals from HSAs not used for qualified medical expenses are included in the gross income of the account owner in determining federal income taxes; they also are subject to a 20% penalty tax. The penalty is waived in cases of disability or death and for individuals age 65 and older. HSA account earnings are tax-exempt and unused balances may accumulate without limit.

Impact

HSAs encourage people to purchase high deductible health insurance and build a reserve for routine and other unreimbursed health care expenses. They are more attractive to individuals with higher marginal tax rates since their tax savings are greater, though some younger, lower income taxpayers might try to build up account balances in anticipation of when their income will be higher. Some higher income individuals may be reluctant to start or continue funding HSAs if they have health problems for which low deductible insurance would be more cost-effective.

Interest in HSAs continues to grow in both the employer and individual health insurance markets. Qualifying insurance was initially offered by insurers that previously had been selling high deductible policies (including policies associated with medical savings accounts, a precursor to HSAs), but today many insurers and even some health maintenance organizations offer qualifying coverage. Some of the first employers to offer HSA plans had previously had health reimbursement accounts (HRAs) that were coupled with high deductible coverage. (First authorized by the IRS in 2002, HRAs are accounts that employees can use for unreimbursed medical expenses; they can be established and funded only by employers and normally terminate when employees leave.) More employers became interested after the IRS issued guidance clarifying how HSA statutory provisions would be interpreted. The federal government began offering HSA plans to its employees in 2005.

According to a survey by America's Health Insurance Plans (AHIP), as of January, 2012, about 13.5 million people were enrolled in qualifying high deductible insurance plans. (AHIP is a national trade association that represents most health insurance carriers.) The number included both policy holders and their covered family members. The January 2012 figure represented an 18% increase over the previous year. Individuals who have an HDHP plan, however, may or may not open an HSA. The Government Accountability Office (GAO) reported that from 2005 and 2007, between 51% and 58% of HDHP plan holders opened an HSA. Nonetheless, it remains uncertain how popular HSAs will be in the long run. While most people who consider them could reasonably expect to have gradually increasing account balances, it is unclear whether this incentive will be enough to offset the increased risks associated with high deductible insurance.

Nearly 80% of the 13.5 million people identified in the AHIP survey had group market insurance (essentially, employment-based insurance), while about 20% had individual market coverage. Within the group market, about 72 percent had large group coverage (over 50 employees) and about 28 percent had small group coverage (50 or fewer employees). The Survey of Employer Health Benefits conducted by the Kaiser Family Foundation and the Health Research and Educational Trust (Kaiser/HRET) indicates that in 2012 about 31 percent of private sector firms that offered health benefits offered an HSA-qualified plan.

Rationale

HSAs were authorized by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L. 108-173). Congress adopted them as a replacement for Archer medical savings accounts (MSAs),

which proponents considered unduly constrained by limitations on eligibility and contributions. Archer MSAs, purchased after December 31, 2007, are still available, but are restricted to self-employed individuals and employees covered by a high deductible plan established by their small employer (50 or fewer workers). MSA contributions are limited to 65 percent of the insurance deductible (75 percent for family policies) or earned income, whichever is less. Individuals cannot make contributions if their employer does. Only about 100,000 MSAs have ever been established. Like MSAs, HSAs were advanced as a way to slow the growth of health care costs by reducing reliance on insurance, to encourage more cost consciousness in obtaining health care services, and to help individuals and families finance future health care costs. Taxpayers can carry their HSAs with them when they change jobs, which, in theory, may help maintain continuity of health care if their new employer offers different or perhaps no health insurance coverage.

The Patient Protection and Affordable Care Act (ACA; P.L. 111-148) included two provisions that change the HSA rules effective in 2011. ACA raised the penalty on non-qualified distributions from 10 to 20 percent of the disbursed amount. ACA also modified the definition of qualified medical expenses to exclude over-the-counter medications (except insulin and those prescribed by a physician) as a qualified medical expense.

HSAs are seen as the cornerstone of consumer driven health care, which some employers hope will limit their exposure to rising health care costs. Some health care providers favor consumer driven health care in order to avoid managed care restrictions on how they practice medicine. HSAs are predicated upon market-based rather than regulatory solutions to health care problems.

Assessment

HSAs could be an attractive option for many people. They allow individuals to insure against large or catastrophic expenses while covering routine and other minor costs out of their own pocket. Properly designed, they may encourage more prudent health care use and the accumulation of funds for medical emergencies. For these outcomes to occur, however, individuals will have to put money into their accounts regularly (especially if their employer doesn't) and refrain from spending it for things other than health care. According to a study by America's Health Insurance Plans, between 2004 and 2009, in general, account balances increased as accounts were held for longer periods of time. However, while balances are growing

their absolute values are not very large with an average balance of \$2,316 after six years.

HSAs have also been touted as lowering overall cost, as consumers must be able to find out what health care providers charge and be willing to switch to lower-cost providers or forgo a doctor's visit for what they may consider a minor ailment. This raises an important issue about the distinction between cost and quality and whether consumers can tell the difference. Similarly, incentives created by an HDHP/HSA to lower expenditures may unintentionally lower expenditures on "necessary" rather than "unnecessary care."

One issue surrounding HSAs is whether they drive up insurance costs for everyone else. If HSAs primarily attract young, healthy individuals, premiums for plans without high deductibles are likely to rise since they would disproportionately cover the older and less healthy individuals. Over time, healthier people in higher cost plans would switch to lower cost plans, raising those premiums but increasing premiums in higher cost plans even more. If this process continued unchecked, eventually people who need insurance the most would be unable to afford it. However, it might be possible to couple HSAs with coverage that does not have high deductibles, just as tax incentives could be designed to attract older, less healthy people.

HSAs have limits on their capacity to substantially reduce aggregate health care spending, even assuming their widespread adoption and significant induction (price elasticity) effects of insurance. Although a few studies suggest this is happening, the literature in this area reports mixed and inconclusive results. Most health care spending is attributable to costs that exceed the high-deductible levels allowed under the legislation; consumers generally have little control over these expenditures. Even for smaller expenditures, the tax subsidies associated with HSAs may effectively reduce patient cost-sharing compared to typical comprehensive health insurance. A further complication is that HSAs with large account balances (which will eventually occur for some people) might be seen as readily-available funds for health care, which could lead to *increases* in spending, just the opposite of the usual prediction.

Regardless of their impact on aggregate expenditures, HSAs provide more economically equitable treatment for taxpayers who choose to self-insure more of their health care costs. Employer-paid health insurance is excluded from employees' gross income regardless of the proportion of costs it covers. Employers generally pay about 80% of the cost of a plan that has a

low deductible and a 20% copayment requirement. If the plan instead had a high-deductible and the same copayment requirement, employees normally would have to pay for expenses associated with the increase in the deductible with after-tax dollars. They would lose a tax benefit for assuming more financial risk. HSAs restore this benefit as long as an account is used for health care expenses. In this respect, HSAs are like flexible spending accounts (FSAs), which also allow taxpayers to pay unreimbursed health care expenses with pre-tax dollars. With FSAs, however, account balances unused at the end of the year and a brief grace period must be forfeited.

Selected Bibliography

America's Health Insurance Plans. A Survey of Preventive Benefits in Health Savings Account (HSA) Plans, July 2007. AHIP Center for Policy and Research (November 2007).

- January 2012 Census Shows 13.5 Million People Covered by HSA/High-Deductible Health Plans. AHIP Center for Policy and Research. (April 2012).
- An Analysis of Health Savings Account Balances, Contributions, and Withdrawals in 2009. December 2010
- Aaron, Henry J. The "Sleeper" in the Drug Bill. *Tax Notes*. v. 102 no. 8 (February 23, 2004).
- Baicker, Katherine et. al., Lowering the Barriers to Consumer-Directed Health Care: Responding to Concerns. *Health Affairs*. vol 25 no. 5 (2008).
- Bloche, M. Gregg. Consumer-Driven Health Care and the Disadvantaged. *Health Affairs*. vol. 26 no 5. (2007).
- Buntin, Melinda B.et al. Consumer-Directed Health Care: Early Evidence About Effects on Cost and Quality. *Health Affairs*. vol. 25 (2006).
- Cannon, Michael F. Health Savings Accounts: Do the Critics Have a Point? Cato Institute. Policy Analysis no. 569 (May 30, 2006).
- Coyle, Dan. The Fine Print on HSAs. Benefits Quarterly. vol 24. no. 4 (2008).
- Dixon, Anna. et. al. "Do Consumer-Directed Health Plans Drive Change in Enrollees' Health Care Behavior?" *Health Affairs*, vol. 27, no. 4. (July/August 2008).
- Hall, Mark A. and Clark C. Havighurst. Reviving Managed Care with Health Savings Accounts. *Health Affairs*. vol. 24 (2005).
- Kaiser Family Foundation, Employer Health Benefits 2012 Annual Survey (2012).
- Mulvey, Janemarie. *Health Savings Accounts: Overview of Rules for 2010*. Library of Congress. Congressional Research Service. Report RL33257 (2010).

Newhouse, Joseph P. "Consumer-Directed Health Plans and the RAND Health Insurance Experiment," *Health Affairs*, vol. 23, no. 6 (November/December 2004).

Parente, Stephen T. and Roger Feldman, "Do HSA Choices Interact with Retirement Savings Decisions?," in *Tax Policy and the Economy*, ed. James M. Poterba, 22 ed. (University of Chicago Press, 2008).

Protecting Consumers in an Evolving Health Insurance Market. *National Committee for Quality Assurance*. (June, 2006).

Rapaport, Carol. *High-Deductible Health Plans and Health Savings Accounts: An Empirical Review*, Library of Congress. Congressional Research Service. Report R41426 (2010).

Remler, Dahlia K. and Sherry A. Glied. How Much More Cost-Sharing Will Health Savings Accounts Bring? *Health Affairs*. vol. 25 (2006).

Richardson, David P. and Jason S. Seligman. Health Savings Accounts: Will They Impact Markets? *National Tax Journal*. vol. 60 no. 3 (2007).

Trude, Sally and Leslie Jackson Conwell. *Rhetoric vs. Reality: Employer Views on Consumer-Driven Health Care*. Center for Studying Health System Change. Issue Brief no. 86. (July, 2004).

- U.S. Government Accountability Office: Consumer-Directed Health Plans: Early Enrollee Experiences with Health Savings Accounts and Eligible Health Plans. GAO-06-798 (August, 2006).
- Consumer-Directed Health Plans: Small but Growing Enrollment Fueled by Rising Cost of Health Care Coverage. GAO-06-514. (April, 2006).
- Health Savings Accounts: Participation Grew, and Many HSA-Eligible Plan Enrollees Did Not Open HSAs While Individuals Who Did Had Higher Incomes, GAO-08-820T. (May 14, 2008).

Health

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR PRIVATE NONPROFIT HOSPITAL FACILITIES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.5	0.6	2.1
2012	1.6	0.6	2.2
2013	1.9	0.6	2.5
2014	2.0	0.7	2.7
2015	2.1	0.7	2.8

Authorization

Section 103, 141, 145(b), 145(c), 146, and 501(c)(3).

Description

Interest income on state and local bonds used to finance the construction of nonprofit hospitals and nursing homes is tax exempt. These bonds are classified as private-activity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals or businesses rather than to the general public. For more discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt*.

These nonprofit hospital bonds are not subject to the state private-activity bond annual volume cap.

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low

interest rates enable issuers to finance hospitals and nursing homes at reduced interest rates.

Some of the benefits of the tax exemption also flow to bondholders. According to data published by the U.S. Internal Revenue Service, in 2010, \$29.4 billion of qualified hospital bonds were issued. For a discussion of the factors that determine the shares of benefits going to bondholders and users of the hospitals and nursing homes, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

Pre-dating the enactment of the first federal income tax, an early decision of the U.S. Supreme Court, *Dartmouth College v. Woodward* (17 U.S. 518 [1819]), confirmed the legality of government support for charitable organizations that provided services to the public.

The income tax adopted in 1913, in conformance with this principle, exempted from taxation virtually the same organizations now included under Section 501(c)(3). In addition to their tax-exempt status, these institutions were permitted to receive the benefits of tax-exempt bonds. Almost all states have established public authorities to issue tax-exempt bonds for nonprofit hospitals and nursing homes. Where issuance by public authority is not feasible, Revenue Ruling 63-20 allows nonprofit hospitals to issue tax-exempt bonds "on behalf of" state and local governments.

Before enactment of the Revenue and Expenditure Control Act of 1968, states and localities were able to issue bonds to finance construction of capital facilities for private (proprietary or for-profit) hospitals, as well as for public sector and nonprofit hospitals.

After the 1968 Act, tax-exempt bonds for proprietary (for-profit) hospitals were issued as small-issue industrial development bonds, which limited the amount for any institution to \$5 million over a six-year period. The Revenue Act of 1978 raised this amount to \$10 million.

The Tax Equity and Fiscal Responsibility Act of 1982 established December 31, 1986 as the sunset date for tax-exempt small-issue industrial development bonds. The Deficit Reduction Act of 1984 extended the sunset date for bonds used to finance manufacturing facilities, but left in place the

December 31, 1986 sunset date for nonmanufacturing facilities, including for-profit hospitals and nursing homes.

The private-activity status of these bonds subjects them to severe restrictions that would not apply if they were classified as governmental bonds.

Assessment

Recently, some efforts have been made to reclassify nonprofit bonds, including nonprofit hospital bonds, as governmental bonds. The proponents of such a change suggest that the public nature of services provided by nonprofit organizations justify such a reclassification. Opponents argue that the expanded access to subsidized loans coupled with the absence of sufficient government oversight may lead to greater misuse than if the facilities received direct federal spending. Questions have also been raised about whether nonprofit hospitals fulfill their charitable purpose and deserve continued access to tax-exempt bond finance.

Even if a case can be made for this federal subsidy for nonprofit organizations, it is important to recognize the potential costs. As one of many categories of tax-exempt private-activity bonds, bonds for nonprofit organizations increase the financing cost of bonds issued for other public capital. With a greater supply of public bonds, the interest rate on the bonds necessarily increases to attract investors. In addition, expanding the availability of tax-exempt bonds increases the assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Barker, Thomas R. "Re-Examining the 501(c)(3) Exemption of Hospitals as Charitable Organizations," *The Exempt Organization Tax Review*, July 1990, pp. 539-553.

Bernet, Patrick M., and Thomas E. Getzen. "Can a Violation of Investor Trust Lead to Financial Contagion in the Market for Tax-Exempt Hospital Bonds?," *International Journal of Health Care Finance and Economics*, vol. 8, no. 1. March 2008, pp. 27-51.

Copeland, John, and Gabriel Rudney. "Federal Tax Subsidies for Not-for-Profit Hospitals," *Tax Notes*. March 26, 1990, pp. 1559-1576.

Gentry, William M., and John R. Penrod. "The Tax Benefits of Not-For-Profit Hospitals," Cambridge, MA, *National Bureau of Economic Research*, 1998, working paper No. 6435.

Gershberg, Alec I., Michael Grossman, and Fred Goldman. "Health Care Capital Financing Agencies: the Intergovernmental Roles of Quasi-government Authorities and the Impact on the Cost of Capital," *Public Budgeting and Finance*, vol. 20, Spring 2000, pp. 1-23.

Gershberg, Alec Ian, Michael Grossman, and Fred Goldman. "Competition and the Cost of Capital Revisited: Special Authorities and Underwriters in the Market for Tax-Exempt Hospital Bonds," *National Tax Journa*, June 2001, pp. 255-280.

Jantzen, Robert, and Patricia R. Loubeau. "Managed Care and U.S. Hospitals' Capital Costs," *International Advances in Economic Research*, vol. 9, no. 3. August 2003, pp. 206-217.

Lunder, Erika. *Tax-Exempt Section 501(c)(3) Hospitals: Community Benefit Standard and Schedule H.* Library of Congress, Congressional Research Service Report RL34605.

Maguire, Steven. *Private Activity Bonds: An Introduction.* Library of Congress, Congressional Research Service Report RL31457.

- . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638.
- U.S. Government Accountability Office, *Tax-Exempt Status of Certain Bonds Merits Reconsideration, and Apparent Noncompliance with Issuance Cost Limitations Should Be Addressed*, GAO-08-364, February 2008.
- U.S. Internal Revenue Service, SOI Tax Stats: Tax-Exempt Bond Statistics, August 2012.

Zimmerman, Dennis. "Nonprofit Organizations, Social Benefits, and Tax Policy," *National Tax Journal*, September 1991, pp. 341-349.

— . The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activities. Washington: The Urban Institute Press, 1991.

Health

DEDUCTION FOR CHARITABLE CONTRIBUTIONS TO HEALTH ORGANIZATIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	2.5	1.6	4.1
2012	2.7	1.6	4.3
2013	3.3	1.6	4.9
2014	3.6	1.7	5.3
2015	3.8	1.8	5.6

Note: Additional costs of charitable contributions that might arise from extenders are discussed in "Deduction for charitable contributions other than for education and health."

Authorization

Section 170 and 642(c).

Description

Subject to certain limitations, charitable contributions may be deducted by individuals, corporations, and estates and trusts. The contributions must be made to specific types of organizations, including organizations whose purpose is to provide medical or hospital care, or medical education or research. To be eligible, organizations must be not-for-profit.

Individuals who itemize may deduct qualified contribution amounts of up to 50 percent of their adjusted gross income (AGI) and up to 30 percent for gifts of capital gain property. For contributions to nonoperating foundations and organizations, deductibility is limited to the lesser of 30 percent of the taxpayer's contribution base, or the excess of 50 percent of the contribution base for the tax year over the amount of contributions which qualified for the 50-percent deduction ceiling (including carryovers from

previous years). Gifts of capital gain property to these organizations are limited to 20 percent of AGI.

The maximum amount deductible by a corporation is 10 percent of its adjusted taxable income. Adjusted taxable income is defined to mean taxable income with regard to the charitable contribution deduction, dividends-received deduction, any net operating loss carryback, and any capital loss carryback. Excess contributions may be carried forward for five years. Amounts carried forward are used on a first-in, first-out basis after the deduction for the current year's charitable gifts have been taken. Typically, a deduction is allowed only in the year in which the contribution occurs. However, an accrual-basis corporation is allowed to claim a deduction in the year preceding payment if its board of directors authorizes a charitable gift during the year and payment is scheduled by the 15th day of the third month of the next tax year.

If a contribution is made in the form of property, the deduction depends on the type of taxpayer (i.e., individual, corporate, etc.), recipient, and purpose.

As a result of the enactment of the American Jobs Creation Act of 2004 (P.L. 108-357), donors of noncash charitable contributions face increased reporting requirements. For charitable donations of property valued at \$5,000 or more, donors must obtain a qualified appraisal of the donated property. For donated property valued in excess of \$500,000, the appraisal must be attached to the donor's tax return. Deductions for donations of patents and other intellectual property are limited to the lesser of the taxpayer's basis in the donated property or the property's fair market value. Taxpayers can claim additional deductions in years following the donation based on the income the donated property provides to the donee. The 2004 act also mandated additional reporting requirements for charitable organizations receiving vehicle donations from individuals claiming a tax deduction for the contribution, if it is valued in excess of \$500.

Taxpayers are required to obtain written substantiation from a donee organization for contributions which exceed \$250. This substantiation must be received no later than the date the donor-taxpayer files the required income tax return. Donee organizations are obligated to furnish the written acknowledgment when requested with sufficient information to substantiate the taxpayer's deductible contribution.

The Pension Protection Act of 2006 (P.L. 109-280) included several provisions that temporarily expand charitable giving incentives. The provisions, effective after December 31, 2005 and before January 1, 2008, include enhancements to laws governing non-cash gifts and tax-free distributions from individual retirement plans for charitable purposes. The 2006 law also tightened rules governing charitable giving in certain areas, including gifts of taxidermy, contributions of clothing and household items, contributions of fractional interests in tangible personal property, and record-keeping and substantiation requirements for certain charitable contributions.

Temporary charitable giving incentives were further extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) enacted in October 2008 and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). These provisions may be extended further.

Impact

The deduction for charitable contributions reduces the net cost of contributing. In effect, the federal government provides the donor with a corresponding grant that increases in value with the donor's marginal tax bracket. Those individuals who use the standard deduction or who pay no taxes receive no benefit from the provision.

A limitation applies to the itemized deductions of high-income taxpayers after 2012, whereby itemized deductions are reduced by 3 percent of the amount by which a taxpayer's adjusted gross income (AGI) exceeds an inflation adjusted dollar amount (\$166,800 in 2009). This limitation was phased out and eventually eliminated by the 2001 tax cut. This tax reduction was extended through 2012, but after that year the phaseout will again be in effect, absent legislative change.

The following table provides the distribution of all charitable contributions, not just those to health organizations. In general, contributions to health the most heavily concentrated in the higher income categories (and to a lesser extent along with contributions to the arts and education), as compared to contributions for religion, combined purpose charities, and charities to meet basic needs.

Distribution by Income Class of the Tax Expenditure for Charitable Contributions, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	0.0
\$20 to \$30	0.2
\$30 to \$40	0.5
\$40 to \$50	0.9
\$50 to \$75	4.9
\$75 to \$100	6.9
\$100 to \$200	28.2
\$200 and over	58.4

Rationale

This deduction was added by passage of the War Revenue Act of October 3, 1917. Senator Hollis, the sponsor, argued that high wartime tax rates would absorb the surplus funds of wealthy taxpayers, which were generally contributed to charitable organizations.

The provisions enacted in 2004 resulted from Internal Revenue Service and congressional concerns that taxpayers were claiming inflated charitable deductions, causing the loss of federal revenue. In the case of vehicle donations, concern was expressed about the inflation of deductions. GAO reports published in 2003 indicated that the value of benefit to charitable organizations from donated vehicles was significantly less than the value claimed as deductions by taxpayers. The 2006 enactments were, in part, a result of continued concerns from 2004. The 2006 legislation also provided for some temporary additional benefits which are part of the "extenders," which were further extended through 2009 by the Economic Emergency Economic Stabilization Act of 2008 (P.L. 110-343) and through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). The 2006 act also added restrictions on donor advised funds (where sponsors receive contributions and then make donations advised by the original contributor) and certain supporting

organizations (organizations that receive donations used to support other active charities).

Assessment

Supporters note that contributions finance desirable activities such as hospital care for the poor. Further, the federal government would be forced to assume some of the activities currently provided by health care organizations if the deduction were eliminated; however, public spending might not be available to make up all of the difference. In addition, many believe that the best method of allocating general welfare resources is through a dual system of private philanthropic giving and governmental allocation.

Economists have generally held that the deductibility of charitable contributions provides an incentive effect that varies with the marginal tax rate of the giver. There are a number of studies which find significant behavioral responses, although a study by Randolph suggests that such measured responses may largely reflect transitory timing effects.

Types of contributions may vary substantially among income classes. Contributions to religious organizations are far more concentrated at the lower end of the income scale than are contributions to health organizations, the arts, and educational institutions, with contributions to other types of organizations falling between these levels. The *volume* of donations to religious organizations, however, is greater than to all other organizations as a group. In 2009, Giving USA Foundation and its research partner, the Center on Philanthropy at Indiana University estimated that contributions to religious institutions amounted to 33 percent of all contributions (\$303 billion from individuals, corporations, bequests, and foundations), while contributions to health care providers and associations amounted to less than 21 percent (\$22.5 billion).

Giving USA reported giving to health increased by 4.2% in 2009, although real charitable giving declined by 3.2%.

There has been a debate concerning the amount of charity care being provided by health care organizations with tax-exempt status. In the 109th Congress, hearings were held by both the Senate Committee on Finance and the House Committee on Ways and Means to examine the charitable status of nonprofit health care organizations. The Patient Protection Act of 2010

(P.L. 111-148) imposed a number of additional regulations and reporting requirements on nonprofit hospitals that receive deductible charitable contributions.

Those who support eliminating charitable deductions note that deductible contributions are made partly with dollars which are public funds. They feel that helping out private charities may not be the optimal way to spend government money.

Opponents further claim that the present system allows wealthy taxpayers to indulge special interests and hobbies. To the extent that charitable giving is independent of tax considerations, federal revenues are lost without having provided any additional incentive for charitable gifts. It is generally argued that the charitable contributions deduction is difficult to administer and that taxpayers have difficulty complying with it because of complexity.

Selected Bibliography

Ackerman, Deena, and Gerald Auten, "Tax Expenditures for Noncash Charitable Contributions," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 651-688.

Aprill, Ellen P. "Churches, Politics, and the Charitable Contribution Deduction," *Boston College Law Review*, v. 42, July 2001, pp. 843-873.

Auten, Gerald E., Sieg Holger, and Charles T. Clotfelter, "Charitable Giving, Income and Taxes: An Analysis of Panel Data," *American Economic Review*, Vol. 92, March 2002, pp. 371-382.

Bakija, Jon. "Distinguishing Transitory and Permanent Price Elasticities of Charitable Giving with Pre-Announced Changes in the Tax Law," October 2000, Mimeo.

Bakija, Jon and Bradley T. Heim. "How Does Charitable Giving Respond to Incentives and Income? New Estimates from Panel Data," in Economic Analysis of Tax Expenditures, Special Issue, *National Tax Journal*, Vol. 64, Part 2, June 2011, pp. 615-650.

Bakija, Jon and Rob McClelland, "Timing vs. Long-Run Charitable Giving Behavior: Reconciling Divergent Approaches and Estimates," December 2004.

Bennett, James T. and Thomas J. DiLorenzo. *Unhealthy Charities: Hazardous to Your Health and Wealth*, New York: Basic Books, c. 1994.

- . "What's Happening to Your Health Charity Donations?," *Consumers' Research*, v. 77, December 1994, pp. 10-15.
- . "Voluntarism and Health Care," *Society*, v. 31, July-August 1994, pp. 57-65.

Bloche, M. Gregg. "Health Policy Below the Waterline; Medical Care and the Charitable Exemption." *Minnesota Law Review*, v. 80, December 1995, pp. 299-405.

Boatsman, James R. and Sanjay Gupta, "Taxes and Corporate Charity: Empirical Evidence from Micro-Level Panel Data," *National Tax Journal*, Vol. 49, June 1996, pp. 193-213.

Bradley, Ralph, Steven Holder, and Robert McClelland, "A Robust Estimation of the Effect of Taxes on Charitable Contributions," *Contemporary Economic Policy*, Vol. 23, October 2005, pp. 545-554.

Buckles, Johnny Rex. "The Case for the Taxpaying Good Samaritan: Deducting Earmarked Transfers to Charity Under Federal Income Tax Law, Theory and Policy," *Fordham Law Review*, v. 70, March 2002, pp. 1243-1339.

Burns, Jack. "Are Nonprofit Hospitals Really Charitable?: Taking the Question to the State and Local Level," *Journal of Corporation Law*, v.29, no. 3, pp. 665-681.

Clark, Robert Charles. "Does the Nonprofit Form Fit the Hospital Industry?" *Harvard Law Review*, v. 93, May 1980, pp. 1419-1489.

Center on Philanthropy, *The 2008 Study of High Net Worth Philanthropy*, Sponsored by Bank of America, Indiana University-Purdue University, Indianapolis, March 2009.

- . Giving USA 2010, The Annual Report on Philanthropy for the Year 2009, Indiana University. Indiana University-Purdue University, Indianapolis: 2010.
- . Patterns of Household Charitable Giving by Income Group, 2005, prepared for Google, Indiana University, Summer 2007.

Clotfelter, Charles T. "The Impact of Tax Reform on Charitable Giving: A 1989 Perspective." In *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, edited by Joel Slemrod, Cambridge, MA.: MIT Press, 1990.

— . "The Impact of Fundamental Tax Reform on Non Profit Organizations." In *Economic Effects of Fundamental Tax Reform*, Eds. Henry J. Aaron and William G. Gale. Washington, DC: Brookings Institution, 1996.

Colombo, John D. "The Marketing of Philanthropy and the Charitable Contributions Deduction: Integrating Theories for the Deduction and Tax Exemption," *Wake Forest Law Review*, v. 36, Fall 2001, pp. 657-703.

Crimm, Nina J. "An Explanation of the Federal Income Tax Exemption for Charitable Organizations: A Theory of Risk Compensation," *Florida Law Review*, v. 50, July 1998, pp. 419-462.

Feenberg, Daniel. "Are Tax Price Models Really Identified: The Case of Charitable Giving," *National Tax Journal*, v. 40, December 1987, pp. 629-633.

Eckel, Catherine C. and Philip J. Grossman, "Subsidizing Charitable Contributions: A Natural Field Experiment," *Experimental Economics*, Vol. 11, March 2008, pp. 234-252.

Feldman, Naomi. "Time is Money: Choosing Between Charitable Activities," *American Economic Journal: Economic Policy*, Vol. 11, No. 1, 2010, pp. 103-130.

Feldman, Naomi and James Hines, Jr. "Tax Credits and Charitable Contributions in Michigan," University of Michigan, *Working Paper*, October 2003.

Fisher, Linda A. "Donor-Advised Funds: The Alternative to Private Foundations," *Cleveland Bar Journal*, v. 72, July/Aug. 2001, pp. 16-17.

Frank, Richard G., and David S. Salkever. "Nonprofit Organizations in the Health Sector." *Journal of Economic Perspectives*, v. 8, Fall 1994, pp. 129-144.

Gentry, William M. and John R. Penrod. "The Tax Benefits of Not-For-Profit Hospitals," *National Bureau of Economic Research Working Paper Series*, w6435, February 1998, pp. 1-58.

Gravelle, Jane. *Economic Analysis of the Charitable Contribution Deduction for Nonitemizers*, Library of Congress, Congressional Research Service Report RL31108, April 29, 2005.

Gravelle, Jane and Donald Marples, Charitable Contributions: The Itemized Deduction Cap and Other FY2011 Budget Options, Library of Congress, Congressional Research Service Report R40518, March 18, 2010.

Gravelle, Jane G. and Molly Sherlock, *An Analysis of Charitable Giving and Donor Advised Funds*, Library of Congress, Congressional Research Service Report R45957, July 11, 2012.

— . Tax Issues Relating to Charitable Contributions and Organizations, Library of Congress, Congressional Research Service Report RL34608, July 11, 2012.

Green, Pamela and Robert McClelland. "Taxes and Charitable Giving," *National Tax Journal*, v. 54 (Sept. 2001), pp. 433-450.

Greenwald, Leslie, Jerry Cromwell, Walter Adamache, Shulamit Bernard, et al. "Specialty Versus Community Hospitals: Referrals, Quality, And Community Benefits," *Health Affairs*; v. 25, Jan/Feb 2006, pp. 106-119.

Griffith, Gerald M. "What the IRS is Examining in CEP Audits of Health Care Organizations," *Journal of Taxation of Exempt Organizations*, v. 11, March/April 2000, pp. 201-212.

Hall, Mark A. and John D. Colombo. "The Charitable Status of Nonprofit Hospitals: Toward a Donative Theory of Tax Exemption," *Washington Law Review*, v. 66, April 1991, pp. 307-411.

Horwitz, Jill R., "Making Profits And Providing Care: Comparing Nonprofit, For-Profit, And Government Hospitals," *Health Affairs*, v. 24, May/June 2005, pp. 790-801.

— , "Why We Need the Independent Sector: The Behavior, Law, and Ethics of Not-For-Profit Hospitals," *University of Michigan Public Law and Legal Theory Research Paper No. 35*, August 2003, pp. 1345-1411.

Hyman, David A. "The Conundrum of Charitability: Reassessing Tax Exemption for Hospitals," *American Journal of Law and Medicine*, v. 16, 1990, pp. 327-380.

Jacobson, Rachel. "The Car Donation Program: Regulating Charities and For-Profits," *The Exempt Organization Tax Review*, v. 45, August 2004, pp. 213-229.

Jones, Darryll K. "When Charity Aids Tax Shelters," *Florida Tax Review*, v. 4 (2001), pp. 770-830.

Joulfaian, David and Mark Rider. "Errors-In-Variables and Estimated Income and Price Elasticities of Charitable Giving," *National Tax Journal*, v. 57, March 2004, pp. 25-43.

Karlan, Dean and John A. List, 2007. "Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment," American Economic Review, Vol. 97, December 2007, pp. 1774-1793.

Kim, Christine J. and Roland Hjorth, "Does Charity Begin at Home for Pharmaceutical Companies?" *Tax Notes*, July 16, 2011, pp. 49-62.

Liddell, Pearson and Janette Wilson, "Individual Noncash Contributions, 2008," (2011), SOI Bulletin, Winter 2011.

Lunder, Erika K. and Edward C. Liu, 501(c)(3) Hospitals and the Community Benefit Standard, Library of Congress, Congressional Research Report RL34065, May 12, 2010.

Kahn, Jefferey H. "Personal Deductions: A Tax "Ideal" or Just Another "Deal?" *Law Review of Michigan State University*, v. 2002, Spring 2002, pp. 1-55.

Morrisey, Michael A., Gerald J. Wedig, and Mahmud Hassan. "Do Nonprofit Hospitals Pay Their Way?" *Health Affairs*, v. 15, Winter 1996, pp. 132-144.

Omer, Thomas C. "Near Zero Taxable Income Reporting by Nonprofit Organizations," *Journal of American Taxation Association*, v. 25, Fall 2003, pp. 19-34.

Owens, Bramer. "The Plight of the Not-for-Profit," *Journal of Healthcare Management*, v. 50, July/August 2005, pp. 237-251.

Randolph, William C. "Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions," *Journal of Political Economy*, v. 103, August 1995, pp. 709-738.

— . "Charitable Deductions," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 1999, pp. 52-54.

Rondeau, Daniel and John A. List, Matching and Challenge Gifts to Charity: Evidence from Laboratory and Natural Field Experiments, National Bureau of Economic Research Working Paper 13728, January 2008.

Sanders, Susan M., "Measuring Charitable Contributions: Implications for the Nonprofit Hospital's Tax-exempt Status," *Hospital and Health Services Administration*, v. 38, fall 1993, pp. 401-418.

Sherlock, Molly and Jane Gravelle, *An Overview of the Charitable and Nonprofit Sector*, Library of Congress, Congressional Research Service Report R40919, November 17, 2009.

Smith, Bernard. "Charitable Contributions: A Tax Primer," *Cleveland Bar Journal*, v. 72, November 2000, pp. 8-11.

Stokeld, Fred, "ETI Repeal Bill Would Tighten Rules on Vehicle, Patent Donations," *Tax Notes*, October 18, 2004, pp. 293-294.

Teitell, Conrad. "Tax Primer on Charitable Giving," *Trust & Estates*, v. 139, June 2000, pp. 7-16.

Tiehen, Laura. "Tax Policy and Charitable Contributions of Money," *National Tax Journal*, v. 54, December 2001, pp. 707-723.

Tobin, Philip T. "Donor Advised Funds: A Value-Added Tool for Financial Advisors," *Journal of Practical Estate Planning*, v. 3, October/November 2001, pp. 26-35, 52.

- U.S. Congress, Congressional Budget Office. *Budget Options*. See Rev-12, Limit Deductions for Charitable Giving to the Amount Exceeding 2 Percent of Adjusted Gross Income. Washington, DC: Government Printing Office, February 2005, p 281.
- U.S. Congress, Government Accountability Office. *Vehicle Donations: Benefits to Charities and Donors, but Limited Program Oversight*, GAO Report GAO-04-73, Washington, DC: U.S. Government Printing Office, November 2003, pp. 1-44.
- . Vehicle Donations: Taxpayer Considerations When Donating Vehicles to Charities, GAO Report GAO-03-608T, Washington, DC: U.S. Government Printing Office, April 2003, pp. 1-15.
- . Nonprofit Hospitals: Better Standards Needed for Tax Exemption. Washington, DC: U.S. Government Printing Office, May 1990.
- U.S. Congress, House Select Committee on Aging. *Hospital Charity Care and Tax Exempt Status: Resorting the Commitment and Fairness.* Washington, DC: U.S. Government Printing Office, June 1990.
- , Joint Committee on Taxation, *Present Law and Background Relating to the Tax-Exempt Status of Charitable Hospitals*, JCX-40-06, Washington, DC: U.S. Government Printing Office, September 2006, pp. 1-29.
- U.S. Department of The Treasury. "Charitable Giving Problems and Best Practices," Testimony Given by Mark Everson, Commissioner of Internal Revenue, Internal Revenue Service, IR-2004-81, Washington, DC: U.S. Government Printing Office, June 22, 2004, pp. 1-17.
- . Report to Congress on Supporting Organizations and Donor Advised Funds December 2011.

Health

EXCLUSION OF WORKERS' COMPENSATION BENEFITS (MEDICAL BENEFITS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	6.0	-	6.0
2012	6.3	-	6.3
2013	5.4	-	5.4
2014	5.4	-	5.4
2015	5.6	-	5.6

Authorization

Section 104 (a)(1).

Description

Payments for medical treatment of work-related injury or disease are provided as directed by various state and federal laws governing workers' compensation. Employers finance workers' compensation benefits through commercial insurance or self-insurance arrangements (with no employee contribution) and their costs are deductible as a business expense. Employees are not taxed on the value of insurance contributions for workers' compensation medical benefits made on their behalf by employers, or on the medical benefits or reimbursements they actually receive. This is similar to the tax treatment of other employer-paid health insurance.

Impact

The exclusion from taxation of employer contributions for workers' compensation medical benefits provides a tax benefit to any worker covered by the workers' compensation program, not just those actually receiving medical benefits in a particular year.

The costs to employers for workers' compensation in 2010 was \$71.3 billion, equivalent to 1.23 percent of covered payrolls. Figures are not available on employer contributions specifically for workers' compensation medical benefits. However, in 2010, medical payments under workers' compensation programs totaled \$28.1 billion. This represented 49 percent of total workers' compensation benefits. The rest consisted mainly of earnings-replacement cash benefits. (See entry on Exclusion of Workers' Compensation Benefits: Disability and Survivors Payments.)

Rationale

This exclusion was first codified in the Revenue Act of 1918. The committee reports accompanying the Act suggest that workers' compensation payments were not subject to taxation before the 1918 Act. No rationale for the exclusion is found in the legislative history. But it has been maintained that workers' compensation should not be taxed because it is in lieu of court-awarded damages for work-related injury or death that, before enactment of workers' compensation laws (beginning shortly before the 1918 Act), would have been payable under tort law for personal injury or sickness and not taxed. Workers' compensation serves as an exclusive remedy for injured workers and these workers are generally prohibited from seeking damages from their employers through the court system.

Assessment

Not taxing employer contributions to workers' compensation medical benefits subsidizes these benefits relative to taxable wages and other taxable benefits, for both the employee and employer. The exclusion allows employers to provide their employees with workers' compensation coverage at a lower cost than if they had to pay the employees additional wages sufficient to cover a tax liability on these medical benefits. In addition to the income tax benefits, workers' compensation insurance benefits are excluded from payroll taxation.

The tax subsidy reduces the employer's cost of compensating employees for accidents on the job and can be viewed as blunting financial incentives to maintain safe workplaces. Employers can reduce their workers' compensation costs if the extent of accidents is reduced. If the insurance premiums were taxable to employees, a reduction in employer premiums would also lower employees' income tax liabilities. Employees might then be willing to accept lower before-tax wages, thereby providing additional savings to the employer from a safer workplace.

Selected Bibliography

Burton, John F., Jr. "Workers' Compensation in the United States: A Primer," *Perspectives on Work*, v. 11. Summer 2007, pp. 23-25.

Hunt, H. Allan. *Adequacy of Earnings Replacement in Workers' Compensation Programs*. Kalamazoo MI: Upjohn Institute for Employment Research. 2004.

Larson, Lex K. Larson's Workers' Compensation Law. Newark, NJ: Matthew Bender, 2010.

Sengupta, Ishita, Virginia Reno, and John F. Burton, Jr. Workers' Compensation: Benefits, Coverage and Costs, 2010. Washington, DC: National Academy of Social Insurance. 2012.

Thomason, Terry, Timothy Schmidle and John F. Burton. Workers' Compensation, Benefits, Costs, and Safety under Alternative Insurance Arrangements. Kalamazoo MI: Upjohn Institute for Employment Research. 2001.

Welch, Edward M. Employer's Guide to Workers' Compensation, Washington, DC: The Bureau of National Affairs, Inc., 1994.

Wentz, Roy. "Appraisal of Individual Income Tax Exclusions," *Tax Revision Compendium*. U.S. Congress, House Committee on Ways and Means Committee Print. 1959, pp. 329-340.

Yorio, Edward. "The Taxation of Damages: Tax and Non-Tax Policy Considerations," *Cornell Law Review*, v. 62. April 1977, pp. 701-736.

Health

TAX CREDIT FOR PURCHASE OF HEALTH INSURANCE BY CERTAIN DISPLACED PERSONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	0.2	A.	0.2
2012	0.2	-	0.2
2013	*	-	*
2014	-	-	-
2015	-	-	-

^{*} Positive tax expenditure of less than \$50 million.

Authorization

Section 35.

Description

In 2011, eligible taxpayers are allowed a refundable tax credit for 72.5 percent of the premiums they pay for qualified health insurance for themselves and family members. The credit is commonly known as the health coverage tax credit (HCTC). The tax credit program will terminate on January 1, 2014. Eligibility is limited to three groups: (1) individuals who are receiving a Trade Readjustment Assistance (TRA) allowance, or who would be except their state unemployment benefits are not yet exhausted; (2) individuals who are receiving an Alternative Trade Adjustment Assistance (ATAA) allowance for people age 50 and over; and (3) individuals who are receiving a pension paid in part by the Pension Benefit Guaranty Corporation (PBGC), or who received a lump-sum PBGC payment, and are age 55 and over. For TRA recipients, eligibility for the HCTC generally does not extend beyond two years, the maximum length of time most can receive TRA allowances or benefits, and could be less in some states.

The HCTC is not available to individuals who are covered under insurance for which an employer or former employer pays 50 percent or more of the cost, who are entitled to benefits under Medicare Part A or an armed services health plan, or who are enrolled in Medicare Part B, Medicaid, the State Children's Health Insurance Program (CHIP), or the federal employees health plan. The Treasury Department makes advance payments of the credit to insurers for eligible taxpayers who choose this option.

The HCTC can be claimed only for 11 types of insurance specified in the statute. Seven require state action to become effective, including coverage through a state high risk pool, coverage under a plan offered to state employees, and, in some limited circumstances, coverage under individual market insurance. As of December 2010, forty-four states and the District of Columbia made at least one of the seven types of coverage available; in the remaining six states, only three automatically qualified types not requiring state action were available, though not necessarily to all individuals eligible for the credit. For example, COBRA continuation coverage is available in all states, but it applies only if the taxpayer had employment-based insurance prior to losing his job and the employer continues to provide the insurance to the remaining employed workers.

The 112th Congress passed and the President signed into law the Trade Adjustment Assistance Extension Act of 2011 (P.L. 112-40) which retroactively changed the subsidy rate to 72.5 percent (from 65 percent) for coverage months beginning after February 12, 2011 and terminated the HCTC as of January 1, 2014.

Impact

The HCTC substantially reduces the after-tax cost of health insurance for eligible individuals and has enabled some to maintain or acquire coverage. According to estimates by the Urban Institute done prior to changes made by the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5), 362,000 households a year meet the TAA, ATAA, or PBGC requirements, and of these between 181,000 and 232,000 qualify for the HCTC. In 2006, between 12% and 15% of those eligible received the credit (about 26,000 households). However, the temporary changes made by ARRA increased the credit amount to 80% and made it easier for unemployed TAA participants to receive the HCTC. As a result, a recent GAO study found that while there was a 26 percent increase among potentially eligible individuals following the implementation of the ARRA

provisions, there was a 36 percent increase in actual participation in the program. Improved participation was mostly among TAA eligible individuals rather than PBGC eligibles. The key reason cited for participation was improved affordability of the credit.

Rationale

The HCTC was authorized by the Trade Act of 2002 (P.L. 107-210). One impetus for the legislation was to assist workers who had lost their jobs, and consequently their health insurance coverage, due to economic dislocations in the wake of the September 11, 2001 terrorist attacks. Difficulties in reaching consensus on who should be included in this group contributed to the decision to restrict eligibility for the credit primarily to workers adversely affected by international trade (e.g., imported goods contributed importantly to their unemployment, or their companies shifted production to other countries). Extension to taxpayers receiving pensions paid by the PBGC occurred late in the legislative process.

The HCTC was temporarily expanded under the ARRA, as part of the stimulus. Specifically, ARRA made temporary changes (through December 31, 2010) including: increasing the HCTC subsidy rate from 65 percent to 80 percent, allowing retroactive payments, expanding the eligibility to include individuals receiving unemployment compensation but not enrolled in training, and allowing family members to continue to receive the HCTC for up to 2 years after a death or divorce or the policy holder becomes Medicare eligible.

By adopting the tax credit, Congress signaled its intention to help individuals maintain or acquire private market health insurance rather than expand public insurance programs like Medicaid or CHIP. Both proponents and opponents initially saw the credit as a possible legislative precedent for a broader tax credit to reduce the number of uninsured, which is similar to the broader health care reform legislation enacted in 2010. As part of Patient Protection and Affordable Care Act (ACA, P.L. 111-148), the HCTC terminates on January 1, 2014 when the newly-established health care exchanges and premiums credits are available.

Assessment

Tax credits for health insurance can be assessed by their effectiveness in continuing and expanding coverage, particularly for those who would otherwise be uninsured, as well as from the standpoint of equity. The HCTC

is helping some unemployed and retired workers keep their insurance, at least temporarily; the impact may be greatest in the case of individuals who most need insurance (those with chronic medical conditions, for example) and who have the ability to pay the 27.5 percent of the cost not covered by the credit. For many eligible taxpayers, the effectiveness of the credit may depend on the advance payment arrangements; these might work well where there is a concentration of eligible taxpayers (where a plant is closed, for example) and if the certification process is simple and not perceived as part of the welfare system.

Prior to the temporary changes made by ARRA to the HCTC, estimates by the Urban Institute presented above found it had not reached many of the people it was intended to benefit. Participation did, however, increase after the HCTC was raised to 80% following ARRA. However, the ARRA provisions expired on December 31, 2010 and the HCTC decreased to 72.5% for 2011 through 2013.

The HCTC is available to all eligible taxpayers with qualified insurance, regardless of income. From the standpoint of inclusiveness, this seems equitable. Using ability to pay as a measure, however, the one rate appears inequitable since it provides the same dollar subsidy to taxpayers regardless of income. An unemployed taxpayer with an employed spouse, for example, can receive the same credit amount as a taxpayer in a household where no one works. At the same time, the credit is refundable, so it is not limited to the taxpayer's regular tax liability.

Selected Bibliography

Dorn, Stan. Health Coverage Tax Credits: A Small Program Offering Large Policy Lessons. The Urban Institute (February, 2008).

- How Well Do Health Coverage Tax Credits Help Displaced Workers Obtain Health Care? Statement before the House Committee on Education and Labor (March 27, 2007).
- Take-Up of Health Coverage Tax Credits: Examples of Success in a Program with Low Enrollment. The Urban Institute (December, 2006).

Fernandez, Bernadette. *Health Coverage Tax Credit.* Library of Congress, Congressional Research Service Report RL32620. (2011).

Fernandez, Bernadette and Thomas Gabe. Health Insurance Premium Credits in the Patient Protection and Affordable Care Act (ACA). Library of Congress, Congressional Research Service Report RL41137. (2012).

Pervez, Fouad and Stan Dorn. Health Plan Options Under the Health Coverage Tax Credit Program. The Urban Institute. (December, 2006).

- Pollitz, Karen. Complexity and Cost of Health Insurance Tax Credits. *Journal of Insurance Regulation*. vol. 25, no. 4 (Summer 2007).
- U.S. Government Accountability Office. Health Coverage Tax Credit: Simplified and More Timely Enrollment Process Could Increase Participation. GAO-04-1029. (September, 2004).
- Health Coverage Tax Credit: Participation and Administrative Costs. GAO-10-521R (April 2010).
- Trade Adjustment Assistance: Most Workers in Five Layoffs Received Services, but Better Outreach Needed on New Benefits. GAO-06-43 (January, 2006).
- U.S. Internal Revenue Service. Information about the Health Coverage Tax Credit is available at: [http://www.irs.gov/individuals/article/0,,id=187948,00.html].
- U.S. Treasury Inspector General for Tax Administration. Financial Controls Over the Health Coverage Tax Credit Advance Payment Process Need to be Enhanced. Reference no. 2006-10-085 (May, 2006).

Health

DEDUCTION FOR HEALTH INSURANCE PREMIUMS AND LONG-TERM CARE INSURANCE PREMIUMS PAID BY THE SELF-EMPLOYED

Estimated Revenue Loss

[In billions of dollars]

Fiscal yea	r Individuals	Corporations	Total
2011	4.1	-	4.1
2012	4.6	-	4.6
2013	5.4	-	5.4
2014	5.9	-	5.9
2015	6.1	-	6.1

Authorization

Section 162(1).

Description

Generally, a self-employed individual may deduct the entire amount he or she pays for health insurance (with some restrictions, which are discussed below), or long-term care insurance, for himself or herself and his or her immediate family. The deductible share of eligible insurance expenses rose from 25 percent in 1987 to 100 percent in 2003 and each year thereafter. For the purpose of this deduction only, self-employed individuals are defined as sole proprietors, working partners in a partnership, and employees of an S corporation who each own more than 2 percent of the corporation's stock. The deduction is taken above-the-line, which is to say that it may be used regardless of whether or not a self-employed individual itemizes on his or her tax return. In addition, the self-employed may deduct their health insurance expenditures from the income base used to calculate their self-employment taxes.

Use of the deduction for health insurance expenditures by the selfemployed is subject to several limitations. First, the deduction cannot exceed a taxpayer's net earned income from the trade or business in which the health insurance plan was established, less the deductions for 50 percent of the self-employment tax and any contributions to qualified pension plans. Second, the deduction is not available for any month when a self-employed individual is eligible to participate in a health plan sponsored by his or her employer or by his or her spouse's employer. Third, if a self-employed individual claims an itemized deduction for medical expenses under IRC section 213, those expenses must be reduced by any deduction for health insurance premiums claimed under section 162(1). Finally, any health insurance premiums that cannot be deducted under section 162(1) may be included with these medical expenses, subject to the statutory threshold of 7.5 percent of adjusted gross income (AGI) (the 7.5 percent increases to 10 percent in 2013 for tax filers under age 65 and in 2016 for tax filers age 65 and older).

Impact

In 2009, the most recent year for which data are available, claims for the health insurance deduction for the self-employed totaled 2.3 million and the total amount claimed was \$15.4 billion. It is not known how many self-employed claimed the deduction for long-term care insurance premiums, or how much they spent for that purpose.

The deduction under section 162(l) reduces the after-tax cost of health insurance or long-term care insurance for self-employed individuals and their immediate families by an amount that depends on marginal tax rates. As a result, higher-income individuals reap greater benefits from the deduction than do lower-income individuals. Moreover, as there is no limit on the amount of health or long-term care insurance expenditures that can be deducted, the deduction has the potential to encourage self-employed individuals in higher tax brackets to purchase more generous health insurance coverage.

The relationship between the size of the subsidy and income is illustrated in the following table. It shows the percentage distribution by AGI of the total deduction for health insurance expenditures by the self-employed claimed for 2009, and the average amount claimed per tax return for each income class. On the whole, individuals with AGIs of more than \$100,000 accounted for nearly 65 percent of the total amount claimed. More telling was the distribution of the average amount claimed per tax return for each AGI class. The average claim increased with income to the extent that for individuals with an AGI of \$200,000 and above, it was more than double the average claim for individuals with an AGI below \$30,000. If the deductions

were translated by the application of weighted marginal tax rates into tax savings by income class, the resulting tax expenditure values would be even more heavily distributed in favor of the higher-income groups.

Distribution of the Deduction for Medical Insurance Premiums by the Self-employed by Adjusted Gross Income Class in 2009 for Taxable Returns

Adjusted Gross	Percentage	Average Amount of the
Income Class	Distribution of	Deduction Claimed per
(in thousands of \$)	Deductions (%)	Tax Return (\$)
Below \$15	0.4	3,459
\$15 to under \$30	3.2	3,031
\$30 to under \$50	8.3	4,211
\$50 to under \$100	23.3	5,203
\$100 to under \$200	28.9	7,426
\$200 and over	36.0	10,465
Total	100	6,701

Note: This is *not* a distribution of tax expenditure values. Derived from data taken from table 1.4-All Individual Returns: Sources of Income, Adjustments, and Tax Items, by Size of Adjusted Gross Income, Tax Year 2009 available through www.irs.gov.

Rationale

The health insurance deduction for the self-employed first entered the tax code as a temporary provision of the Tax Reform Act of 1986. Under the act, the deduction was equal to 25 percent of qualified health insurance expenditures and was set to expire on December 31, 1989. The Technical and Miscellaneous Revenue Act of 1988 made a few minor corrections to the provision.

A series of laws extended the deduction for brief periods during the early 1990s: the Omnibus Budget Reconciliation Act of 1989 extended the deduction for 9 months (through September 30, 1990) and made it available to subchapter S corporation shareholders; the Omnibus Budget Reconciliation Act of 1990 extended the deduction through December 31, 1991; the Tax Extension Act of 1991 extended the deduction through June 30, 1992; and the Omnibus Budget Reconciliation Act of 1993 extended it through December 31, 1993. Throughout this period, the deductible share of eligible health insurance expenditures remained at 25 percent.

Congress allowed the deduction to expire at the end of 1993 and took no action to extend it during 1994. A law enacted in April 1995, P.L. 104-7, reinstated the deduction, retroactive to January 1, 1994, and made it a permanent provision of the Internal Revenue Code. Under the act, the deductible share of eligible health insurance expenditures was to remain at 25 percent in 1994 and then rise to 30 percent in 1995 and beyond.

The Health Insurance Portability and Accountability Act of 1996 (HIPAA, P.L. 104-191) increased the deductible share of health insurance expenditures by the self-employed from 30 percent in 1995 and 1996 to 40 percent in 1997 and gradually to 80 percent in 2006 and each year thereafter. HIPAA also allowed self-employed persons to include in the expenditures eligible for the deduction any payments they made for qualified long-term care insurance, beginning January 1, 1997. The act imposed dollar limits on the amount of long-term care premiums that could be deducted in a single tax year and indexed these limits for inflation. In 2013, these limits will range from \$360 for individuals age 40 and under to \$4,550 for individuals over age 70.

The Omnibus Consolidated and Emergency Supplemental Appropriations Act for FY1999 (P.L. 105-277) increased the deductible share to its present level: 70 percent of eligible expenditures in 2002 and 100 percent in 2003 and each year thereafter.

The Small Business Jobs and Credit Act of 2010 (P.L. 111-499) allowed business owners to deduct the cost of health insurance incurred in 2010 for themselves and their family members in the calculation of their 2010 self-employment tax.

Assessment

In establishing the deduction for spending on health insurance and long-term care insurance by the self-employed, Congress seemed to have two motivations. One was to provide those individuals with a tax benefit comparable to the exclusion from the taxable income of any employer-provided health benefits received by employees. A second motive was to improve access to health care by the self-employed.

The deduction lowers the after-tax cost of health insurance purchased by the self-employed by a factor equal to a self-employed individual's marginal income tax rate. Individuals who purchase health insurance coverage in the non-group market but are not self-employed receive no such tax benefit. There is some evidence that the deduction has contributed to a significant increase in health insurance coverage among the self-employed and their immediate families. As one would expect, the gains appear to have been concentrated in higher-income households.

Proponents of allowing the self-employed to deduct 100 percent of health insurance expenditures cited vertical equity as the main justification for such tax treatment. In their view, it was only fair that the self-employed receive a tax subsidy for health insurance coverage comparable to what is available to employees who receive employer-provided health insurance.

While the section 162(l) deduction greatly narrowed the gap between the self-employed and employees, it does not go far enough to achieve true equality in the tax treatment of health insurance coverage for the two groups. Recipients of employer-provided health insurance (including shareholder-employees of S corporations who own more than 2 percent of stock) are allowed to exclude employer contributions from the wage base used to determine their Social Security and Medicare tax contributions. By contrast, the self-employed must include their spending on health insurance in the wage base used to calculate their self-employment taxes under the Self-Employment Contributions Act.

The deduction also raises some concerns about its efficiency effects. Critics of current federal tax subsidies for health insurance contend that a 100-percent deduction is likely to encourage higher-income self-employed individuals to purchase health insurance coverage that leads to wasteful or inefficient use of health care. To reduce the likelihood of such an outcome, some favor capping the deduction at an amount commensurate with a standardized health benefits package, adjusted for regional variations in health care costs.

Selected Bibliography

Gruber, Jonathan and James Poterba. "Tax Incentives and the Decision to Purchase Health Insurance: Evidence from the Self-Employed," *The Quarterly Journal of Economics*, v. 109, issue 3. August 1994, pp. 701-33.

Gurley-Calvez, Tami. *Health Insurance Deductibility and Entrepreneurial Survival*. Small Business Administration, Office of Advocacy. Washington, DC: April 2006.

Mulvey, Janemarie. *Tax Benefits for Health Insurance and Expenses: Overview of Current Law.* Library of Congress, Congressional Research Service Report RL33505. Washington, DC. (2012).

Perry, William Craig and Harvey S. Rosen. *Insurance and the Utilization of Medical Services Among the Self-Employed*. In Cnossen, Sijbren and Hans-Werner Sinn (eds.) Public Finances and Public Policy in the New Millennium. MIT Press: Cambridge, 2003.

- U.S. Congress, Congressional Budget Office, *Budget Options Volume 1, Health Care*, Washington, D.C: December 2008, p. 29.
- , Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress. P.L. 99-514, Joint Committee Print JCS-10-87. Washington, DC: U.S. Government Printing Office, May 4, 1987, pp. 815-17.
- , Present Law Tax Treatment of the Cost of Health Care. Joint Committee Print JCX-81-08. Washington, DC: October 24, 2008.

Wellington, Alison J. "Health Insurance Coverage and Entrepreneurship," *Journal of Contemporary Economic Policy*, v. 19, no. 4, October 2001, pp. 465-478.

Health

DEDUCTION FOR MEDICAL EXPENSES AND LONG-TERM CARE EXPENSES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	9.5	•	9.5
2012	11.4	-	11.4
2013	14.1	-	14.1
2014	16.6	-	16.6
2015	19.0	-	19.0

Authorization

Section 213.

Description

Most medical expenses that are paid for by an individual but not reimbursed by an employer or insurance company may be deducted from taxable income to the extent they exceed 7.5 percent (10 percent beginning in 2013 for tax filers under age 65, and in 2016 for tax filers age 65 and older) of his or her adjusted gross income (AGI). In order to benefit from this deduction, individuals must itemize on their tax returns. If an individual receives reimbursements for medical expenses deducted in a previous tax year, the reimbursements must be included in his or her taxable income for the year when they were received. But any reimbursement received for medical expenses incurred in a previous year for which no deduction was used may be excluded from an individual's taxable income.

A complicated set of rules governs the expenses eligible for the deduction. These expenses include amounts paid by the taxpayer on behalf of himself or herself, his or her spouse, and eligible dependents for the following purposes:

- (1) health insurance premiums, including a variable portion of premiums for long-term care insurance, employee payments for employer-sponsored health plans, Medicare Part B premiums, and other self-paid premiums;
- (2) diagnosis, treatment, mitigation, or prevention of disease, or for the purpose of affecting any structure or function of the body, including dental care:
- (3) prescription drugs and insulin (but not over-the-counter medicines);
 - (4) transportation primarily for and essential to medical care; and
- (5) lodging away from home primarily for and essential to medical care, up to \$50 per night for each individual.

In general, the cost of programs entered by an individual on his or her own initiative to improve general health or alleviate physical or mental discomfort unrelated to a specific disease or illness may not be deducted. But the cost of similar programs prescribed by a physician to treat a particular disease is deductible. The same distinction applies to procedures intended to improve an individual's appearance. For instance, the IRS does not consider the cost of whitening teeth discolored by aging to be a deductible medical expense, but the cost of breast reconstruction after a mastectomy or vision correction through laser surgery are deductible expenses.

Impact

For individual taxpayers who itemize, the deduction can ease the financial burden imposed by costly medical expenses. For the most part, the federal tax code regards these expenses as involuntary expenses that reduce a taxpayer's ability to pay taxes by absorbing a substantial part of income.

But the deduction is not limited to strictly involuntary expenses. It also covers some costs of preventive care, rest cures, and other discretionary expenses. A significant share of deductible medical expenses relates to procedures and care not covered by many insurance policies (such as orthodontia).

As with any deduction, the medical expense deduction yields the largest tax savings per dollar of expense for taxpayers in the highest income tax brackets. Yet, relative to other itemized deductions, a larger percentage of the tax returns from the medical expense deduction go to taxpayers in the lower-to-middle income brackets. Taxpayers with AGIs below \$75,000 accounted for about 29 percent of the benefit and 61 percent of the returns in 2010. There are several reasons why such an outcome is not unlikely or strange as it may seem. Lower-income taxpayers have relatively low rates of health insurance coverage, because they cannot afford health insurance coverage or their employers do not offer it. As a result, many of these taxpayers are forced to pay out of pocket for the health care they and their immediate families receive. In addition, medical spending constitutes a larger fraction of household budgets among low-income taxpayers than it does among high-income taxpayers, making it easier for low-income taxpayers to exceed the 7.5-percent AGI threshold in 2010. Finally, low-income households are more likely to suffer large declines in their incomes than high-income households when serious medical problems cause working adults to lose time from work.

Distribution by Income Class of the Tax Expenditure for Medical Deductions, 2010

Income	Class	Percentage	Percentage
(in thousands of \$)		Distribution of Returns	Distribution of \$
Below \$10		2.2	0.0
\$10 to \$20		3.4	0.3
\$20 to \$30		6.0	1.0
\$30 to \$40		10.5	2.4
\$40 to \$50		13.3	5.2
\$50 to \$75		26.0	19.9
\$75 to \$100		18.8	22.1
\$100 to \$200		18.3	38.8
\$200 and over		1.6	10.5

Rationale

Since the early 1940s, numerous changes have been made in the rules governing the deduction of medical expenses. For the most part, these changes have focused on where to set the income threshold, whether to cap the deduction and at what amount, the maximum deductible amount for taxpayers who are 65 and over and disabled, whether to carve out separate income thresholds for spending on medicines and drugs and for health

insurance expenditures, and the medical expenses that qualify for the deduction.

Taxpayers first were allowed to deduct health care expenses above a specific income threshold in 1942. The deduction was a provision of the Revenue Act of 1942. In adopting such a rule, Congress was trying to encourage improved standards of public health and ease the burden of high tax rates during World War II. The original deduction covered medical expenses (including spending on health insurance) above 5 percent of AGI and was capped at \$2,500 for a married couple filing jointly and \$1,250 for a single filer.

Under the Revenue Act of 1948, the 5-percent income threshold remained intact, but the maximum deduction was changed so that it equaled the then personal exemption of \$1,250 multiplied by the number of exemptions claimed. The act placed a cap on the deduction of \$5,000 for joint returns and \$2,500 for all other returns.

The Revenue Act of 1951 repealed the 5-percent floor for taxpayers and spouses who were age 65 and over. No change was made in the maximum deduction available to other taxpayers.

Congress passed legislation that substantially revised the Internal Revenue Code in 1954. One of its provisions reduced the AGI threshold to 3 percent and imposed a 1-percent floor for spending on drugs and medicines. In addition, the maximum deduction was increased to \$2,500 per exemption, with a ceiling of \$5,000 for an individual return and \$10,000 for a joint or head-of-household return.

In 1959, the maximum deduction rose to \$15,000 for taxpayers who were 65 and over and disabled, and to \$30,000 if their spouses also met both criteria.

The threshold was removed on deductions for dependents age 65 and over the following year.

In 1962, the maximum deduction was increased to \$5,000 per exemption, with a limit of \$10,000 for individual returns, \$20,000 for joint and head of household returns, and \$40,000 for joint returns filed by taxpayers and their spouses who were 65 or over and disabled.

Congress eliminated the 1-percent floor on medicine and drug expenses for those age 65 or older (taxpayer, spouse, or dependent) in 1964. In the

following year, a 3-percent floor for medical expenses and a 1-percent floor for drugs and medicines were reinstated for taxpayers and dependents aged 65 and over. At the same time, the limitations on maximum deductions were abolished, and a separate deduction not to exceed \$150 was established for health insurance payments.

The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) made a number of significant changes in the deduction under section 213. First, it raised the floor from 3 percent to 5 percent of AGI. Second, it eliminated the separate deduction for health insurance payments and allowed taxpayers to combine them with other qualified medical expenses in computing the section 213 deduction. Finally, TEFRA removed the separate 1-percent floor for drug costs, excluded non-prescription or over-the-counter drugs from the deduction, and merged the deduction for prescription drugs and insulin with the deduction for other medical expenses.

Under the Tax Reform Act of 1986 (TRA86), the income threshold for the medical expenses deduction increased from 5 percent of AGI to its present level of 7.5 percent.

The Omnibus Budget Reconciliation Act of 1990 disallowed deductions for the cost of cosmetic surgery, with certain exceptions. It also exempted the medical expense deduction from the overall limit on itemized deductions for high-income taxpayers.

Under the Health Insurance Portability and Accountability Act of 1996 (HIPAA, P.L. 104-191), spending on long-term care and long-term care insurance was granted the same tax treatment as spending on health insurance and medical expenses. This meant that as of January 1, 1997, taxpayers were allowed to include expenditures for long-term care and long-term care insurance in the medical expenses eligible for the deduction. The act also imposed annual dollar limits, indexed for inflation, on the long-term care insurance payments a taxpayer may deduct, subject to the 7.5 percent of AGI threshold. The limits depend on the age of the insured person: in 2013, they will range from \$360 for individuals age 40 and under to \$4,550 for individuals over age 70.

HIPAA also specified that periodic reimbursements received under a qualified long-term care insurance plan were considered payments for personal injuries and sickness and could be excluded from gross income, subject to a cap that was indexed for inflation. These payments could not be added to the expenses eligible for the section 213 deduction because they

were considered reimbursement for health care received under a long-term care contract. Insurance payments above the cap that did not offset the actual costs incurred for long-term care services had to be included in taxable income.

Under the Patient Protection and Affordable Care Act (ACA,P.L. 111-148) the threshold will increase to 10% of AGI in 2013 for taxpayers who are under the age of 65; this effectively further limits the amount of medical expenses that can be deducted. Taxpayers age 65 and older will be temporarily excluded from this provision and still be subject to the 7.5% limit from 2013 through 2016.

Assessment

Changes in the tax laws during the 1980s substantially reduced the number of tax returns claiming the itemized deduction for medical and dental expenses. In 1980, 19.5 million returns, or 67 percent of itemized returns and 21 percent of all returns, claimed the deduction. But in 1983, the first full tax year reflecting the changes made by TEFRA, 9.7 million returns, representing 28 percent of itemized returns and 10 percent of all returns, claimed the deduction. The modifications made by TRA86 led to a further decline in the number of individuals claiming the deduction. In 1990, for instance, 5.1 million returns, or 16 percent of itemized returns and 4 percent of all returns, claimed the deduction. Since then, however, the number of individuals claiming the deduction has been steadily rising. For example, 10.1 million returns claimed the deduction for 2009, or 33 percent of all itemized returns and about 7 percent of all returns.

The deduction is intended to assist taxpayers who have relatively high medical expenses paid out of pocket relative to their taxable income. Taxpayers are more likely to use the deduction if they can fit several large medical expenditures into a single tax year. Unlike the itemized deduction for casualty losses, a taxpayer cannot carry medical expenses that cannot be deducted in the current tax year over to previous or future tax years.

Some argue that the deduction serves the public interest by expanding health insurance coverage. In theory, it could have this effect, as it lowers the after-tax cost of such coverage. This reduction can be as large as 35% for someone in the highest tax bracket. Yet there appears to be a tenuous link, at best, between the deduction and health insurance coverage. So few taxpayers claim the deduction that it is unlikely to have much impact on the decision to purchase health insurance, especially among individuals whose only option

for coverage is to buy health insurance in the non-group market, where premiums tend to be higher and gaps in coverage more numerous than in the group market. What is more, few among those who itemize and have health insurance coverage are likely to qualify for the deduction because insurance covers most of the medical care they use.

Current tax law violates the principles of vertical and horizontal equity in its treatment of health insurance expenditures. Taxpayers who receive health benefits from their employers receive a larger tax subsidy, at the margin, than taxpayers who purchase health insurance on their own or self-insure. Employer-paid health care is excluded from income and payroll taxes, whereas the cost of health insurance bought in the non-group market can be deducted from taxable income only to the extent it exceeds 7.5 or 10 percent of AGI. Lowering or abolishing the AGI threshold for the deduction would narrow but not eliminate the difference between the tax benefits for health insurance available to the two groups.

Selected Bibliography

Goldsberry, Edward, Ashley Tenney and David Luke. "Deductibility of Tuition and Related Fees as Medical Expenses," *The Tax Adviser*, November 2002, pp. 701-702.

Jones, Lawrence T. "Long-Term Care Insurance: Advanced Tax Issues," *Journal of Financial Service Professionals*, September 2004, pp. 51-59.

Kaplow, Louis. "The Income Tax as Insurance: The Casualty Loss and Medical Expense Loss Deductions and the Exclusion of Medical Insurance Premiums," *California Law Review*, v. 79, December 1991, pp. 1485-1510.

Mulvey, Janemarie. *Tax Benefits for Health Insurance and Expenses: Overview of Current Law.* Library of Congress, Congressional Research Service Report RL33505, Washington, DC: (2012).

Pauly, Mark V. "Taxation, Health Insurance, and Market Failure in the Medical Economy," *Journal of Economic Literature*, v. 24, no. 2. June 1986, pp. 629-75.

Rook, Lance W. "Listening to Zantac: The Role of Non-Prescription Drugs in Health Care Reform and the Federal Tax System," *Tennessee Law Review*, v. 62, Fall 1994, pp. 102-39.

Sheiner, Louise. "Health Expenditures, Tax Treatment," *The Encyclopedia of Taxation and Tax Policy*, ed. Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington: Urban Institute Press, 2005, pp. 175-176.

U.S. Congress, Congressional Budget Office, *Budget Options Volume 1*, *Health Care*, Washington, D.C: December 2008, p. 30.

— , Joint Committee on Taxation. *Present Law Tax Treatment of the Cost of Health Care*. Joint Committee Print JCX-81-08. Washington, DC: October 24, 2008.

Vogel, Ronald. "The Tax Treatment of Health Insurance Premiums as a Cause of Overinsurance," *National Health Insurance: What Now, What Later, What Never?* ed. M. Pauly. Washington: American Enterprise Institute for Public Policy Research, 1980.

Wilensky, Gail R. "Government and the Financing of Health Care" *American Economic Review*, v. 72, no. 2. May 1982, pp. 202-07.

Health

EXCLUSION OF EMPLOYER CONTRIBUTIONS FOR HEALTH CARE, HEALTH INSURANCE PREMIUMS, AND LONG-TERM CARE INSURANCE PREMIUMS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	109.3		109.3
2012	128.1	-	128.1
2013	147.8	-	147.8
2014	164.2	-	164.2
2015	175.6	-	175.6

Authorization

Sections 105, 106, and 125.

Description

Employees pay no income or payroll taxes on contributions by their employers for coverage under accident or health plans. This exclusion also applies to certain health benefits for employees who participate in so-called cafeteria plans established by their employers. Employees covered by these plans generally may exclude from taxable income their payments for employer-provided health insurance. In addition, many employers offer health benefits to employees through flexible spending accounts (FSAs). Under such an account, an employee chooses a benefit amount at the start of a calendar year and draws on the account over the course of the year to pay for medical expenses not covered by an employer's health plans. FSAs are funded through wage and salary reductions or through employer contributions, both of which are exempt from income and payroll taxes.

The exclusion for employer contributions to health and accident plans is available regardless of whether an employer self-insures or enters into contracts with third-party insurers to provide group and individual health plans. Unlike some fringe benefits, there is no limit on the amount of employer contributions that may be excluded, with one notable exception. Generous reimbursements paid to highly compensated employees under self-insured medical plans that fail to satisfy specified non-discrimination requirements must be included in the employees' taxable income.

Impact

The tax exclusion for employer contributions to employee health plans benefits only those taxpayers who participate in employer-sponsored plans. Beneficiaries include current employees as well as retirees. In 2011, 58.4 percent of the U.S. population received health insurance coverage through employers, according to Employee Benefits Research Institute's analysis of data from the U.S. Census Bureau.

Although the tax exclusion benefits a majority of working Americans, it provides greater benefits to higher-income taxpayers than to lower-income ones. Highly paid employees tend to receive more generous employer-paid health insurance coverage than their lowly paid counterparts. And highly paid employees fall in higher tax brackets. The value of an exclusion depends in part on a taxpayer's marginal tax rate: for a given amount of employer-provided health insurance coverage, the higher the rate, the greater the tax benefit.

While the tax code encourages the provision of health insurance through the workplace, not all workers receive health insurance coverage from their employers. Those at greatest risk of being uninsured include workers under age 25, workers in firms with fewer than 25 employees, part-time workers, workers earning relatively low wages, and workers in the construction, business and personal service, entertainment, and wholesale and retail trade industries.

The following table presents data for 2011 on health insurance coverage by income group for the entire non-institutionalized, non-elderly population of the United States. Income is expressed as a percentage of the federal poverty income level for that year.

Health Insurance Coverage From Specified Sources, by Family Income Relative to the Federal Poverty Level, 2011 (Percent of U.S. Civilian, Non-institutionalized Population (Under Age 65)

Income Relative	Type of Insurance				
to the Poverty Level ^a	Population (in millions)	Employment -based ^b	Public	Non- group ^d	Un- insured
Less than 100%	42.9	12.7%	52.6%	4.7%	31.5%
100% to 149%	25.2	25.9%	41.8%	5.2%	31.5%
150% to 199%	24.0	41.6%	29.2%	6.5%	27.7%
200% to 299%	43.9	59.7%	18.9%	7.6%	20.9%
300% and above	130.3	82.3%	8.8%	8.2%	8.2%
Total	266.4	58.4%	22.5%	7.1%	18.0%

People may have more than one source of health insurance; thus row percentages may total to more than 100.

Source: Employee Benefit Research Institute estimates of the Current Population Survey, March 2012 Supplement. Published in *Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 2012 Current Population Survey*, EBRI Issue Brief, September 2012.

As the table clearly shows, the likelihood of having employer-provided health insurance increased substantially with family income. The percentage of those covered by employment-based health insurance (column 3) increases by income level. In 2011, 12.7 percent of individuals with family incomes below the poverty-level had employer-sponsored coverage, compared to 82.3 percent of individuals with family incomes three or more times that level.

At the same time, the likelihood of receiving public health insurance declined as family income rose. The percentage of those covered by public insurance (column 4) in 2011 dropped from 52.6 percent for those in the lowest income group to 8.8 percent for those in the highest income group. A similar pattern is apparent among the uninsured: the percentage of uninsured

^a The weighted average poverty threshold for a family with two adults and two children in 2011 was \$22,314.

^b Group health insurance through employer or union.

^c Medicare, Medicaid, the State Children's Health Insurance Program, or other state programs for low-income individuals, veterans coverage, or military health care.

^d Private non-group health insurance,.

declined from 31.5 percent for those in the lowest income group to 8.2 percent for those in the highest income group.

Rationale

The exclusion of compensation in the form of employer-provided accident or health plans originated with the Revenue Act of 1918. But the Internal Revenue Service (IRS) did not rule until 1943 that employer contributions to group health insurance policies for employees can be excluded from taxable income. This ruling did not address all outstanding issues surrounding the tax treatment of employer-provided health benefits. For instance, it did not apply to employer contributions to individual health insurance policies. The tax status of those contributions remained in doubt until the IRS ruled in 1953 that they should be taxed. This ruling had only a brief existence, as the enactment of IRC section 106 in 1954 reversed it. Henceforth, employer contributions to all accident and health plans were considered deductible expenses for employers and non-taxable compensation for employees. The legislative history of section 106 indicates that it was mainly intended to remove differences between the tax treatment of employer contributions to group and non-group or individual health insurance plans.

The Revenue Act of 1978 added the non-discrimination provisions of section 105(h). These provisions specified that the benefits paid to highly compensated employees under self-insured medical reimbursement plans were taxable if the plan discriminated in favor of these employees. The Tax Reform Act of 1986 repealed section 105(h) and replaced it with a new section 89 of the Internal Revenue Code, which extended non-discrimination rules to group health insurance plans. In 1989, P.L. 101-140 repealed section 89 and reinstated the pre-1986 Act rules under section 105(h). The Patient Protection and Affordable Care Act (P.L. 111-148) extended non-discrimination provisions to fully-insured plans. Effective for plan years beginning on or after September 23, 2010, the sponsors of health plans are prohibited from establishing eligibility criteria, for any full-time employee, that are based on the total hourly or annual salary of the employee. In no way are eligibility rules permitted to discriminate in favor of higher wage employees.

Under the Health Insurance Portability and Accountability Act of 1996 (P.L. 104-191), employer contributions to the cost of qualified long-term care insurance may be excluded from employees' taxable income. But this

exclusion does not apply to long-term care benefits received under a cafeteria plan or flexible spending account (FSA).

Assessment

The exclusion for employer-provided health insurance is thought to exert a strong influence on the health insurance coverage for a substantial share of the non-elderly working population. Because of the subsidy, employees face a significant incentive to prefer compensation in the form of health benefits rather than taxable wages. On average, \$1 in added health benefits is worth only \$0.70 in added wages.

Such a preference, however, has at least one notable drawback: it may lead employees to select more health insurance coverage than they need. Most health economists think the unlimited exclusion for employer-provided health benefits has distorted the markets for both health insurance and health care. Generous health plans encourage subscribers to use health services that are not cost-effective, putting upward pressure on health care costs.

The exclusion does have some social benefits. Owing to the pooling of risk that employment-based group health insurance provides, one can argue that the exclusion makes it possible for many employees to purchase health insurance plans that simply would not be available on the same terms or at the same cost in the individual market.

Workers and their dependents covered by employer-provided health plans receive a much greater tax subsidy than individuals who purchase health insurance in the individual market or who have no health insurance, pay out of pocket for their medical expenses, and claim the medical-expense itemized income tax deduction. The cost of employer-paid health care is completely excluded from the taxable income of those who receive such care. By contrast, relatively few taxpayers can take advantage of the medical expense deduction. To do so, they must itemize on their tax returns, and their out-of-pocket spending on medical care (including health insurance premiums) must exceed 7.5 percent of adjusted gross income (the 7.5 percent increases to 10 percent in 2013 for tax filers under age 65 and in 2016 for tax filers age 65 and older). In addition to the tax exclusion, employer-paid health insurance is exempt from payroll taxation.

Proposals to limit the tax exclusion for employer-provided health benefits periodically receive serious consideration. Generally, their principal aim is to retain the main social benefit of the exclusion — expanded access

to group health insurance — while curbing its main social cost — overly generous health insurance coverage. One way to achieve this goal would be to cap the exclusion at or somewhat below the average cost of group health insurance in major regions. A case in point is a proposal by the tax reform panel created by President George W. Bush in January 2005. In its final report, the panel recommended capping the exclusion at the average U.S. premiums for individual and family health insurance coverage. Eliminating the exclusion, or capping it to reduce the benefit of high cost plans was discussed during health care reform in 2010, but not directly implemented. Instead, the Patient Protection and Affordable Care Act (P.L. 111-148 as amended) imposed a 40% excise tax on health insurers whose plan values exceeded certain thresholds for 2018 and after. The intention was that health insurers would pass the cost of the tax onto employers who would ultimately reduce the value of the benefit and thus indirectly reduce the value of the tax exclusion. The excise tax approach is similar to the effect of disallowing an exclusion at the top rate and avoids some of the complications of assigning benefits to employees.

Not all analysts agree with such an approach. Critics say that it would be difficult to determine in an equitable manner where to draw the line between reasonable and excessive health insurance coverage. They also contend that any limit on the exclusion would have to take into account the key factors determining health insurance premiums, including a firm's geographic location, size of its risk pool, and the risk profile of its employees. Limiting the subsidy for employer-provided health insurance would also carry a significant risk of some workers forgoing health insurance and some firms stopping the provision of health insurance to employees.

Selected Bibliography

Abraham, Jean Marie, and Roger Feldman, "What Will Happen if Employers Drop Health Insurance? A Simulation of Employees' Willingness to Purchase Health Insurance in the Individual Market," *National Tax Journal*, vol. 62, no. 2, June 2010, pp. 191-213.

Arnet, Grace-Marie, ed. *Empowering Health Care Consumers Through Tax Reform*. Ann Arbor, MI, University of Michigan Press, 1999.

Burman, Leonard E., Jason Furman, Greg Leiserson, and Roberton C. William, Jr. "The President's Proposed Standard Deduction for Health Insurance: Evaluation and Recommendations," *National Tax Journal*, vol. 60, no. 3. September 2007, pp. 433-454.

Burman, Leonard E., and Amelia Gruber. "First Do No Harm: Designing Tax Incentives for Health Insurance," *National Tax Journal*, v. 54, no. 3. September 2001, pp. 473-493.

Carasso, Adam. "Growth in the Exclusion of Employer Health Premiums." *Tax Notes.* June 27, 2005, p. 1697.

Cogan, John F., R. Glenn Hubbard, and Daniel P. Kessler. *The Effect of Tax Preferences on Health Spending*, Working Paper 13767. National Bureau of Economic Research, Cambridge, MA: January 2008.

Feldstein, Martin, and Bernard Friedman. "Tax Subsidies, the Rational Demand for Insurance and the Health Care Crisis," *Journal of Public Economics*, v. 7. April 1977, pp. 155-78.

Fronstin, Paul. "Employment-Based Health Benefits: Trends in Access and Coverage." *Issue Brief.* no. 284. Employee Benefit Research Institute. Washington, DC: August 2005.

Gruber, Jonathan. "Taxes and Health Insurance," Tax Policy and the Economy, National Bureau of Economic Research, Volume 16 (2002)

Gruber, Jonathan, and James M. Poterba. "Tax Subsidies to Employer-Provided Health Insurance," in Martin Feldstein and James Poterba, eds., *Empirical Foundations of Household Taxation*. National Bureau of Economic Research. Chicago and London: Univ. of Chicago Press, 1996.

— . "Fundamental Tax Reform and Employer-Provided Health Insurance," in *Economic Effects of Fundamental Tax Reform*, eds. Henry H. Aaron and William G. Gale. Washington, DC: Brookings Institution Press, 1996, pp. 125-170.

Marquis, Susan, and Joan Buchanan. "How Will Changes in Health Insurance Tax Policy and Employer Health Plan Contributions Affect Access to Health Care and Health Care Costs?" *Journal of the American Medical Association*, v. 271, no. 12. March 23/30, 1994, pp. 939-44.

Mulvey, Janemarie. Tax Benefits for Health Insurance and Expenses: An Overview of Current Law and Legislation. Library of Congress, Congressional Research Service Report RL33505, Washington, DC: (2012).

Pauly, Mark V. "Taxation, Health Insurance, and Market Failure in the Medical Economy." *Journal of Economic Literature*, v. 24, no. 2. June 1986, pp. 629-75.

Pauly, Mark V., and John C. Goodman. "Using Tax Credits for Health Insurance and Medical Savings Accounts," in Henry J. Aaron, *The Problem That Won't Go Away*. Washington, DC: Brookings Institution, 1996.

President's Advisory Panel on Federal Tax Reform. Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System. Washington, DC: November 2005.

Smart, Michael and Mark Stabile. "Tax Credits, Insurance, And The Use Of Medical Care," *Canadian Journal of Economics*, 2005, v38, no. 2, pp. 345-365

- U.S. Congress, Congressional Budget Office, *Budget Options Volume 1*, *Health Care*, Washington, D.C: December 2008, pp. 24-25.
- . The Tax Treatment of Employment-Based Health Insurance. Washington, DC: March 1994.

- —, House Committee on the Budget, Subcommittee on Oversight. Task Force on Tax Expenditures and Tax Policy. *Tax Expenditures for Health Care*, Hearings, 96th Congress, 1st session. July 9-10, 1979.
- , House Committee on Ways and Means. 1994 Green Book. Background Material and Data on Programs within the Jurisdiction of the Committee on Ways and Means. Overview of Entitlement Programs, Committee Print WMCP 103-27, 103rd Congress, 2nd session. Washington, DC: U.S. Government Printing Office, July 15, 1994, pp. 689-92, 943-50.
- , Joint Committee on Taxation. *Present Law Tax Treatment of the Cost of Health Care*, JCX-81-08. Washington, DC: October 24, 2008.

Health

EXCLUSION OF MEDICAL CARE AND TRICARE MEDICAL INSURANCE FOR MILITARY DEPENDENTS, RETIREES, AND RETIREE DEPENDENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	2.5	-	2.5
2012	2.6	-	2.6
2013	2.7	-	2.7
2014	2.7	-	2.7
2015	2.8	-	2.8

Authorization

Sections 112 and 134 and certain court decisions [see specifically *Jones v. United States*, 60 Ct. Cl. 552 (1925)].

Description

Active-duty and reserve component military personnel are provided with a variety of benefits (or cash payments in lieu of such benefits) that are not subject to taxation. Among such benefits are medical and dental care. Dependents of active-duty personnel, retired military personnel and their dependents, survivors of deceased members, are also eligible for these health benefits — and thus can take advantage of the tax exclusion.

Military dependents and retirees are allowed to receive some of their medical care in military facilities and from military doctors, provided there is enough spare capacity. These individuals also have the option of being treated by civilian health-care providers working under contract with the Department of Defense (DOD). DOD currently relies on a program known as TRICARE to coordinate the medical care supplied by military and civilian providers. TRICARE gives most beneficiaries three options for receiving medical care: TRICARE Prime, a DOD-managed health maintenance

organization(HMO); TRICARE Extra, a preferred-provider organization (PPO) that provides a discount on copayments for beneficiaries who use network providers; and TRICARE Standard (formerly known as CHAMPUS), a fee-for-service option that provides access to non-network providers. In addition, TRICARE For Life is available for beneficiaries who are age 65 or over or otherwise eligible for Medicare. TRICARE Extra and TRICARE Standard reimburse beneficiaries for a portion of their spending on civilian health care, have no enrollment requirement, and can both be used by individuals not enrolled in TRICARE Prime.

The FY2001 Defense Authorization Act included a provision allowing military retirees and their dependents who are eligible for Medicare Part A and participate in Medicare Part B to retain their TRICARE coverage as a secondary payer to Medicare. To qualify for the coverage, generally an individual must have served at least 20 years in the military. Under the plan, TRICARE pays for most of the cost of treatments not covered by Medicare.

Impact

As with the exclusion for employer-provided health insurance, the benefits from the tax exclusion for health benefits for military personnel and their dependents, retirees, and other eligible individuals depend on a recipient's tax bracket. The higher the tax bracket, the greater the tax savings. For example, an individual in the 10-percent tax bracket (the lowest federal income tax bracket) avoids \$10 in tax liability for every \$100 of health benefits he or she may exclude; the tax savings rises to \$35 for someone in the 35-percent tax bracket.

The larger tax saving for higher-income military personnel may be partly offset by the higher deductibles under the TRICARE Extra plan and the higher co-payments for outpatient visits under the TRICARE Standard plan required of dependents of higher-ranked personnel (E-5 and above). In addition various legislative changes to the TRICARE program have impacted the overall amount of tax savings. Retirees under age 65 and their dependents pay an enrollment fee for TRICARE Prime and tend to pay higher deductibles and co-payments than the dependents of active-duty personnel. The FY2001 Defense Authorization Act extended TRICARE coverage to Medicare-eligible beneficiaries with Medicare Part A coverage who pay the Medicare Part B monthly premium. The FY2012 Defense Authorization Act (P.L. 112-81) allowed DOD to increase the annual TRICARE prime enrollment fee by \$30 per year for individual and \$60 per year for family enrollments beginning in FY2012 for new enrollees and

FY2013 for previously enrolled beneficiaries as well as an additional annual increase indexed to the annual cost of living adjustment to retirement pay effective FY2013. This meant that effective October 1, 2012, the individual retiree annual enrollment fee for TRICARE Prime became \$269.28 and \$538.56 for family enrollments. The Administration's 2013 Budget included proposals to introduce new TRICARE Standard/Extra and TRICARE for Life enrollment fees for retirees as well as a new index and tiered-enrollment fee schedule for TRICARE Prime. However, Congress, so far, has not adopted the legislative language necessary to implement these proposals.

Rationale

The tax exclusion for health care received by the dependents of activeduty military personnel, retirees and their dependents, and other eligible individuals has evolved over time. The main forces driving this evolution have been legal precedent, legislative action by Congress, a series of regulatory rulings by the Treasury Department, and long-standing administrative practices.

In 1925, the United States Court of Claims, in its ruling in *Jones v. United States*, 60 Ct. Cl. 552 (1925), drew a sharp distinction between the pay and the allowances received by military personnel. The court ruled that housing and housing allowances for these individuals constituted reimbursements similar to other tax-exempt benefits received by employees in the executive and legislative branches.

Before this decision, the Treasury Department maintained that the rental value of living quarters, the value of subsistence allowances, and reimbursements should be included in the taxable income of military personnel. This view rested on an earlier federal statute, the Act of August 27, 1894 (which the courts subsequently deemed unconstitutional), which imposed a two-percent tax "on all salaries of officers, or payments to persons in the civil, military, naval, or other employment of the United States."

Health benefits were added later. Under the Dependent Medical Care Act of 1956, the dependents of active-duty military personnel and retired military personnel and their dependents were allowed to receive medical care at military medical facilities on a "space-available" basis. Military personnel and their dependents gained access to civilian health care providers through the Military Medical Benefits Amendments Act of 1966, which created the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), the precursor of the TRICARE system.

The Tax Reform Act of 1986 consolidated various provisions related to military compensation into a new section 134 of the Internal Revenue Code. In taking this step, Congress wanted to make the tax treatment of military fringe benefits more transparent and consistent with the tax treatment of fringe benefits under the Deficit Reduction Act of 1984. Section 134 specifically excludes from gross income any "qualified military benefit" which is defined to include any allowance or in-kind benefit (other than personal use of a vehicle).

Even if there was no specific statutory exclusion for the health benefits received by military personnel and their dependents, a case for excluding them from taxation could be made on the basis of sections 105 and 106 of the Internal Revenue Code. These sections exclude from the taxable income of employees any employer-provided health benefits they receive.

Assessment

Most military fringe benefits resemble those offered by private employers, such as allowances for housing, subsistence, moving and storage expenses, higher living costs abroad, uniforms medical and dental benefits, education assistance, group term life insurance, and disability and retirement benefits. While few would dispute that medical readiness of active-duty personnel is critical to the military's mission and thus related medical treatment should not be taxed, health benefits for dependents of active-duty personnel and retirees and their dependents have more in common with an employer-provided fringe benefit.

Most of the economic issues raised by the tax treatment of military health benefits are similar to those associated with the tax treatment of civilian and employer-provided health benefits. A central concern is that a tax exclusion for health benefits encourages individuals to purchase excessive health insurance coverage and use inefficient amounts of health care. For health economists, health care is inefficient when its marginal cost exceeds its marginal benefit. Data indicating higher utilization rates by TRICARE beneficiaries than comparable civilian HMO beneficiaries suggest that the economic efficiency of the program might be worthy of additional scrutiny. The TRICARE Prime inpatient utilization rate (direct and purchased care combined) was 78 percent higher than the civilian HMO utilization rate in FY 2011 (78.4 discharges per 1,000 Prime enrollees compared with 44.0 per 1,000 civilian HMO enrollees). That is up from 74 percent higher in FY 2009. In FY 2011, the TRICARE Prime inpatient

utilization rate was 70 percent higher than the civilian HMO rate for MED/SURG procedures and 115 percent higher for OB/GYN procedures.

Nonetheless, some of the issues raised by military health benefits have no counterpart in the civilian sector. Direct care provided in military facilities may at times be difficult to value for tax purposes. At the same time, such care may be the only feasible option for dependents living with service members who have been assigned to regions where adequate civilian medical facilities are lacking.

Proposals to make the tax treatment of health care received by dependents of active-duty personnel less generous may have important implications for rates of enlistment in the military. Some argue that limiting the tax exclusion for health care received by dependents would need to be coupled with an increase in military pay in order to prevent adverse impacts on the retention of active-duty military personnel with dependents and incomes high enough to incur tax.

Selected Bibliography

Hamby, James E., Jr. "Tricare for Life Law Combines Medicare, Tricare Standard," *Air Force Times*, June 23, 2008, p. 43.

Hanson, Marshall. "Is TRICARE Standard or TRICARE Extra the Right Option?" *The Officer*, April 2004, p. 39.

Jansen, Don J. *Military Medical Care Services: Questions and Answers.* Library of Congress. Congressional Research Service Report RL33537. Washington, DC: (2012).

Kapp, Lawrence (Coordinator) FY2013 National Defense Authorization Act: Selected Military Personnel Policy Issues, Library of Congress, Congressional Research Service (R42651) Washington, DC (2012).

Office of the Undersecretary of Defense (Comptroller)/CFO, United States Department of Defense Fiscal Year 2012 Budget Request Overview, February 2011, p. 3-3.

Office of the Undersecretary of Defense (Personnel & Readiness) Department of Defense Evaluation of the TRICARE Program: Access, Cost and Quality Fiscal Year (FY) 2012 Report to Congress March 2012, p. 67.

Owens, William L. "Exclusions From, and Adjustments to, Gross Income," Air Force Law Review, v. 19 (Spring 1977), pp. 90-99.

- U.S. Congress, Congressional Budget Office. *The Tax Treatment of Employment Based Health Insurance*. Washington, DC: March 1994.
- , House. Joint Committee on Taxation. General Explanation of the Tax Reform Act of 1986, H.R. 3838, 99th Congress, Public Law 99-514. Washington, DC: U.S. Government Printing Office, 1987, pp. 828-830.

Joint Committee on Taxation. Present Law Tax Treatment of the Cost of Health Care. JCX-81-08. Washington, DC: October 24, 2008.

Winkenwerder, William Jr. "Tricare: Your Military Health Plan," Soldiers Magazine, February 1, 2004, p. S1.

Health

TAX CREDIT FOR ORPHAN DRUG RESEARCH

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	0.6	0.6
2012	(1)	0.7	0.7
2013	$\binom{1}{}$	0.7	0.7
2014	(¹)	0.8	0.8
2015	(1)	0.8	0.8

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 38, 41(b), 45C, and 280C.

Description

Since 1981, businesses have been able to claim a non-refundable tax credit equal to a specified percentage of qualified expenses for qualified research above a base amount under section 41. When the credit expired at the end of 2011, there were two such percentages: 20 percent for the regular research credit and 14 percent for the alternative simplified research credit.

Since 1983, however, companies investing in the development of drugs to diagnose, treat, or prevent qualified rare diseases and conditions have been able to claim a non-refundable tax credit equal to 50 percent of the qualified clinical testing expenses they incur or pay during the development process. These drugs are commonly referred to as orphan drugs. To qualify for the credit, the clinical testing expenses must be incurred or paid after the U.S. Food and Drug Administration's (FDA) Office of Orphan Products Development (OOPD) has granted orphan status to a drug but before the FDA has approved it for marketing in the United States. Section 526 of the Federal Food, Drug, and Cosmetic Act defines a rare disease or condition as one affecting fewer than 200,000 persons in the United States or one which

is unlikely to be profitable within the seven years following FDA approval. No credit is allowed for clinical testing conducted outside the United States, unless there is an inadequate testing population here and the testing is done by a U.S. entity or another entity unrelated to the taxpayer sponsoring the testing.

The orphan drug credit has been a component of the section 38 general business credit (GBC) since 1997, subjecting the credit to its limitations. For most of the 39 credits that make up the GBC, an unused credit for the current tax year can be carried back one year or forward up to 20 years. But in the case of the orphan drug credit, the carryback period is three years and the carryforward period 15 years. In the tax years from 1983 to June 30, 1996, the orphan drug credit could be claimed only for the year when it was earned, meaning that it could not be carried back or forward, and only to the extent that a company's regular income tax liability, reduced by any non-refundable personal tax credits and the foreign tax credit, exceeded its tentative alternative minimum tax.

Clinical testing expenses are the sum of the in-house and contract research expenses a company pays or incurs to determine if a new investigative drug is safe and effective in treating the targeted diseases and conditions. Not all the expenses incurred in connection with the conduct of clinical trials for orphan drugs qualify for the credit. Specifically, while the cost on supplies and salaries do qualify, spending on the acquisition of depreciable property does not.

To prevent a company from benefitting twice from the same expenditures, the tax code restricts the credits and deductions a company claiming the orphan drug tax credit may take in the same tax year. Specifically, expenses used to claim the orphan drug tax credit cannot also be used to claim the section 41 research tax credit; and while the same expenses may also be deducted in the year when they are incurred or paid as qualified research expenditures under section 174, a company claiming the orphan drug tax credit is required to reduce its section 174 deduction by the amount of the credit.

Impact

In essence, the orphan drug tax credit gives drug companies a stronger incentive to invest in the development of drugs they otherwise might choose to ignore. Orphan drugs generally offer poor prospects for earning profits during the period of patent protection because they tend to be as costly to

develop as other drugs and the potential demand for them is considerably less than it is for drugs to treat common and chronic diseases and conditions. The credit lowers the cost of capital for investments in orphan drug development relative to other investments a drug company might make. It also increases the cash flow of companies making the investments in the short run, which is especially beneficial for drug companies that rely heavily on internal cash to finance new investments. While a drug company investing in the development of a non-orphan drug could claim a section 41 research tax credit for its qualified clinical testing expenses, the maximum credit would be smaller than the credit it could claim if it were to incur the same expenses for conducting clinical trials for an orphan drug.

In the long run, the burden of the corporate income tax (and any benefits generated by reductions in that burden) probably extends beyond corporate stockholders to owners of capital in general.

To the extent that the credit has expanded and accelerated the development of orphan drugs, it benefits many of the persons suffering from rare diseases and conditions. According to the OOPD, only 10 such medicines were approved in the decade before 1983, but from 1983 to 1992, the FDA approved 88 orphan drugs. From 1983 to 2011, 395 such drugs were approved for marketing in the United States. An estimated 20 to 25 million Americans are thought to suffer from one of 7,000 diseases or conditions considered rare.

Rationale

The orphan drug tax credit was established by the Orphan Drug Act of 1983 (ODA, P.L. 97-414). It was one of four incentives for orphan drug development included in the act. The others were (1) federal grants to cover part of the research expenses, (2) a seven-year period of marketing exclusivity for orphan drugs approved by the FDA, and (3) a waiver of FDA application fees for orphan drugs seeking FDA approval. Under the act, the only test for determining whether a drug should have orphan status was the absence of a reasonable expectation of recovering its cost of development from U.S. sales alone.

This test soon proved unworkable, as it required drug companies to provide detailed proof that a drug in development would end up being unprofitable. So to fix the problem, Congress in October 1984 passed the Health Promotion and Disease Prevention Amendments of 1984 (P.L. 98-551), which instituted a different eligibility test: namely, drugs for which the

estimated domestic market did not exceed 200,000 persons, or if it did exceed that number, for which there is no realistic prospect of earning a profit from domestic sales alone.

The initial orphan drug credit was scheduled to expire at the end of 1987, but it was extended in succession by the Tax Reform Act of 1986 (P.L. 99-514), the Omnibus Budget Reconciliation Act of 1990 (101-508), the Tax Extension Act of 1991 (102-227), and the Omnibus Reconciliation Act of 1993 (103-66). The credit expired at the end of 1994 but was reinstated for the period from July 1, 1996 through May 31, 1997 by the Small Business Job Protection Act of 1996 (104-88), which also allowed taxpayers with unused credits to carry them back up to three tax years or carry them forward up to 15 tax years. The Taxpayer Relief Act of 1997 permanently extended the credit.

To further boost U.S. investment in the development of diagnostics and treatments for rare disorders, Congress passed the Rare Diseases Act of 2002 (P.L. 107-280). Among other things, the act established the Office of Rare Diseases Research at the National Institutes of Health and authorized increases in annual funding from FY2003 through FY2006. The Office's budget authority in both FY2011 and FY2012 was \$10.6 million.

In addition, drugs that have been granted orphan status are exempt from the annual fee imposed on manufacturers and importers earning gross receipts from the sale of branded prescription drugs. The fee was established by the Patient Protection and Affordable Care Act (ACA, P.L. 111-148). Under temporary and proposed regulations (REG-112805-10) issued by the Internal Revenue Service (IRS) on August 18, 2011, no fee may be imposed on any drug for which a credit "was allowed for any taxable year under section 45C," as specified in section 9008(e)(3) of the act. At a hearing on the proposed regulations held on November 9, 2012, a number of interested parties contended that the IRS should expand the class of drugs exempt from the fee to include all FDA-approved drugs developed for the sole purpose of treating, preventing or diagnosing rare disorders, including those for which the credit was not claimed. Under current law, a drug may not be eligible for the section 45C credit if another drug has already been approved to treat the same condition and the manufacturer claimed the credit. Those seeking a broader definition of eligible drugs are concerned that the IRS's position will discourage drug companies and other entities (e.g., hospitals and universities) from developing new drugs to treat rare diseases. As explained in the preamble for the temporary regulations, the IRS is taking this stance

because, in its view, the ACA plainly states that the exemption is available only for drugs for which the orphan drug credit has already been received

Assessment

Supporters of the orphan drug credit and the other incentives for orphan drug development included in the ODA say there is ample evidence that they have been effective in increasing the domestic availability of medicines to treat, diagnose, or prevent rare diseases and conditions. From 1983 through 2011, drug companies and other sponsors (e.g., hospitals, individuals, and universities) submitted more than 3,660 requests to the OOPD for orphan designation for products they developed; over 2,550 of the requests were granted; and the FDA approved 395 of those products for marketing in the United States. More than 14 million Americans have been treated with these drugs. In addition, while an estimated 58 drugs to treat rare disorders were approved in the United States during the 15 years before 1983, the FDA approved a total of 188 such drugs in the 15 years following the passage of the ODA. Furthermore, supporters also point out that the incentives have led to the development not only of orphan drugs derived from products used to treat more prevalent disorders but orphan drugs that can be considered innovative treatments.

Still, not everyone holds the view that the incentives should be deemed an unqualified success and thus retained in their current form. Some critics point out that despite ODA's successes, approved orphan drugs treat less than five percent of registered rare diseases. They also cite research indicating that the incentives have done little to spur greater private-sector investment in the development of drugs to treat ultra-rare conditions, which are conditions affecting fewer than 1 to 5 persons in every 10,000. In their view, additional economic incentives are needed to remedy this problem.

Others note that more than a few pharmaceutical and biotechnology firms have taken advantage of the ODA incentives to develop and market drugs that have earned billions of dollars in sales revenue worldwide since their approval by the FDA. In 2003, for example, a total of nine such drugs each had worldwide sales in excess of \$1 billion. More recently, the orphan cancer drug Rituxan was the world's second most profitable drug (just behind Lipitor) in 2011 and is expected to bring in over \$150 billion in revenue during its lifetime. By the end of 2009, 18 drugs given orphan designation had annual worldwide sales exceeding \$1 billion during the seven-year period of marketing exclusivity. According to these critics, many of the most profitable orphan drugs that have become available since 1983

would have been developed without government support. To keep drug companies from using the ODA incentives to develop so-called blockbuster medicines in the future, they recommend capping the revenues a company can earn from the sale of an orphan drug or shortening the period for marketing exclusivity when worldwide profits from the sale of the drug surpass a certain amount. Supporters of the ODA incentives dispute this claim, noting that it is difficult (if not impossible) to know in advance whether a drug intended to treat a very small population will eventually gain blockbuster status.

An issue related to the profitability of some orphan drugs is the high cost of some orphan drugs and the barriers that cost erects to widespread use of the drugs among target populations. The annual cost of treatment with some orphan drugs reaches six digits; for example, use of imiglucerase to treat Gaucher's disease costs a patient as much as \$400,000 a year. And price increases for some orphan drugs have exceeded 1,000 percent in a year. Some argue that current orphan drug pricing practices are denying far too many Americans timely access to life-sustaining and life-enhancing medicines.

Some have found fault with the design of the ODA's incentives. A case in point is the rules for awarding orphan designations. Current regulations allow firms to classify drugs with multiple uses as being useful for a narrow range of applications only, making it easier for them to gain orphan status. An estimated 40 percent of orphan drugs that have achieved blockbuster status had previously gained FDA approval under the same brand names to treat non-orphan diseases and conditions.

In addition, some critics of the ODA question whether it is appropriate or even desirable for federal policy to divert private resources from the development of drugs to treat disorders and conditions that affect a broad range of people to the development of drugs that benefit relatively few, albeit with dramatic results in some cases.

A 2012 report by Ana M. Valverde, Shelby D. Reed, and Kevin A. Schulman makes a case for modifying the ODA incentives to reduce the economic barriers to early-phase orphan drug development, especially for companies that cannot fully benefit from the orphan drug tax credit owing to insufficient revenue from existing products. Under their proposal, companies applying for an orphan drug designation could simultaneously apply for a special grant within the FDA or the National Institutes of Health that would be designed to offset clinical development expenses. Grant recipients would

be ineligible to claim the credit. They would also have to agree to adhere to pricing caps for the orphan drugs they develop with the grant; the caps would take into consideration the time required for drug development, the cost of the project, the expected market size, and the hurdle rate of return on investment. The authors refer to this approach as the "grant-and-access pathway;" "access" in this instance refers to patients' access to affordable drugs.

Selected Bibliography

Asbury, Carolyn H. "The Orphan Drug Act: the First 7 Years," *Journal of the American Medical Association*, v. 265 (1991), pp. 893-897.

Biotechnology Industry Organization. Clarification Needed in the Orphan Drug Tax Credit to Accelerate Research in Rare Diseases. Washington: April 11, 2003.

Dalton, Matthew. "IRS Urged to Revise Definition of Orphan Drug." *Tax Notes*, November 19, 2012, p. 866.

Edgerly, Maureen. "Regulatory: Orphan Drug Regulation," *Research Practitioner*, v. 3 (Jan.-Feb. 2002), pp. 21-23.

Flynn, John J. "The Orphan Drug Act: An Unconstitutional Exercise of the Patent Power," *Utah Law Review*, no. 2 (1992), pp. 389-447.

Grabowski, Henry. "Encouraging The Development of New Vaccines," *Health Affairs*, v. 24, no. 3 (2005), pp. 697-700.

Guenther, Gary. Federal Taxation of the Pharmaceutical Industry: Effects on New Drug Development. Congressional Research Service Report RL31511. Washington: March 18, 2009.

Haffner, Marlene E. "Orphan Products — Ten Years Later and Then Some," Food and Drug Law Journal, v. 49 (1994), pp. 593-601.

- , "Adopting Orphan Drugs: Two Dozen Years of Treating Rare Diseases." *New England Journal of Medicine*, v. 354, no. 5 (2006), p. 445.
- , Joseph Torrent-Farnell, and Paul D. Maher. "Does Orphan Drug Legislation Really Answer the Needs of Patients." *The Lancet*, vol. 371, no. 9629, June 14-2-, 2008, p. 2041.

Hamilton, Robert A. "'Orphans' Saving Lives," *FDA Consumer*, v. 24 (November 1990), pp. 7-10.

Hemphill, Thomas A. "Extraordinary Pricing of Orphan Drugs: Is it a Socially Responsible Strategy for the U.S. Pharmaceutical Industry?" *Journal of Business Ethics*, v. 94 (2010), pp. 225-242

Henkel, John. "Orphan Products — New Hope for People with Rare Disorders," *FDA Consumer*, 2nd. Ed. (1995), pp. 46-49.

Kiely, Tom. "Spoiled by Success? Biotechnology Companies Abused the Intent of the Orphan Drug Act," *Technology Review*, v. 94, no. 3, (April 1991), pp. 17-18.

Levitt, Joseph A. and John V. Kelsey. "The Orphan Drug Regulations and Related Issues," Food and Drug Law Journal, v. 48 (1993), pp. 525-535.

Love, James and Michael Palmedo. Costs of Human Use Clinical Trials: Surprising Evidence from the US Orphan Drug Act. Consumer Project on Technology. November 28, 2001, available at http://www.cptech.org.

Seoane-Vazquez, Enrique, Rosa Rodriquez-Monguio, Sheryl L. Szeinbach, and Jay Visaria. "Incentives for orphan drug research and development in the United States," *Orphanet Journal of Rare Diseases*, v. 33, no. 3 (2008).

Shulman, Shelia R., Brigitta Bienz-Tadmor, Pheak Son Seo, Joseph A. DiMasi, and Louis Lasagna. "Implementation of the Orphan Drug Act: 1983-1991," *Food and Drug Law Journal*, v. 47 (1992), pp. 363-403.

Thamer, Mae, Niall Brennan, and Rafael Semansky. "A Cross-National Comparison of Orphan Drug Policies: Implications for the U.S. Orphan Drug Act," *Journal of Health Politics, Policy and Law*, v. 23 (April 1998), pp. 265-290.

Thomas, Cynthia A. "Re-Assessing the Orphan Drug Act," *Columbia Journal of Law and Social Problems*, v. 23, No. 3, 1990, pp. 413-440.

Treinish, Nathan J. "Developing Drugs for Tropical Diseases Rare in the United States: A Case Study on African Sleeping Sickness," *Food and Drug Law Journal*, v. 48 (1993), pp. 533-535.

U.S. Department of Health and Human Services, Public Health Service, Food and Drug Administration. From Test Tube to Patient: New Drug Development in the United States, Rockville, MD: 1995. 67 p.

Valverde, Ana M., Shelby D. Reed, and Kevin A. Schulman. "Proposed 'Grant-And-Access' Program With Price Caps Could Stimulate Development of Drugs For Very Rare Diseases." *Health Affairs*, v. 31, no. 11 (2012), pp. 2528-2535.

Wechsler, Jill. "Smooth Sailing for Orphans." *Pharmaceutical Executive*, vol. 28, no. 7, p.

Winegarden, Wayne. A Primer on the Orphan Drug Market: Addressing the Needs of Patients with Rare Diseases. Pacific Research Institute, www.pacificresearch.org.

Yin, Wesley. "Market Incentives and Pharmaceutical Innovation," *Journal of Health Economics*, v.27 (2008), pp. 1060-1077.

Health

PREMIUM SUBSIDY FOR COBRA CONTINUATION COVERAGE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.2	-	1.2
2012	(1)	-	(1)
2013	-	-	-
2014	-	-	-
2015	-		-

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 6432.

Description

Under the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA, P.L. 99-272), employees who lose their jobs have the option of continuing their employer-sponsored health insurance coverage for up to 18 months. To be eligible, an individual must be enrolled in the employer's plan before being laid off or experiencing a change in family status (such as a divorce) that would force her to lose health insurance coverage. To take advantage of the option, an eligible individual is required pay the entire COBRA premium, plus an added 2 percent of the premium to cover administrative expenses.

An exception to this rule was made for eligible persons who involuntarily lost their jobs between September 1, 2008 and May 31, 2010. Under a provision of the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5), these individuals could receive a premium subsidy for COBRA coverage. The subsidy was equal to 65 percent of the premium for coverage lasting up to 15 months from the date of job loss for eligible

workers and their families. Workers who were involuntarily terminated between September 1, 2008 and February 17, 2009 (the date of enactment for ARRA) but initially turned down COBRA coverage because of the cost were given an additional 60 days to elect COBRA and receive the subsidy.

Not all employees were eligible. Only individuals who worked for a company that had 20 or more full-time equivalent employees could benefit from the premium subsidy. Workers who lost their jobs because their employer went out of business were not eligible for the subsidy, nor were employees of companies that stopped offering health benefits. To benefit from the full subsidy, a laid-off worker's adjusted gross income (AGI) could not exceed \$125,000 for a single filer and \$250,000 for a joint filer. Single filers with AGIs above \$145,000 and joint filers with AGIs above \$290,000 were ineligible for the premium subsidy.

The subsidy ended when someone became eligible for coverage under a new employer-sponsored health insurance plan or for Medicare.

Impact

The tax provision sharply cut the cost to an eligible individual of continuing employer-sponsored health insurance coverage under COBRA. As a result of the subsidy, such a person could purchase the coverage at a 65-percent discount.

Rationale

The premium subsidy for COBRA continuation coverage was intended to prevent a large increase in the number of Americans without health insurance during the severe recession that began in late 2007 and ended in mid-2009 and its immediate aftermath when job growth was unusually weak by historical standards. ARRA provided a 9-month COBRA premium subsidy for eligible individuals who were involuntarily terminated from their jobs between September 1, 2008 and December 31, 2009. The Department of Defense Appropriations Act, 2010 (P.L. 111-118) extended the eligibility date to February 28, 2010, and lengthened the eligibility period for the subsidy from nine to 15 months. The Temporary Extension Act of 2010 (P.L. 111-144) extended the eligibility date to March 31, 2010, and the Continuing Extension Act of 2010 (P.L. 111-157) advanced it to May 31, 2010.

Assessment

It is unclear how effective the provision was in encouraging the purchase of COBRA continuation coverage by laid-off workers. Still, there is reason to believe that the subsidy had a smaller impact on insurance coverage than one might have expected when it was enacted in 2009. While the subsidy covered 65 percent of the cost of the employer-sponsored health insurance, the remaining 35 percent of the premium represented an increase in the employee's share of the cost of coverage. In 2009, the average employee with employer-provided health insurance paid 17 percent of the cost of individual coverage and 27 percent of the cost of family coverage. The increase in the average former employee's share (106 percent for individual coverage and 30 percent for family coverage) may have been large enough to keep many eligible individuals from continuing coverage under their former employers' health plans.

Nonetheless, there is some evidence that the premium subsidy boosted demand for COBRA coverage while it was available. According to the results of two surveys of eligible laid-off workers (one done in 2009 and the other in 2010), the COBRA premium subsidy increased the take-up rate for COBRA continuation coverage. While the two surveys came up with divergent point estimates of that rate, both concluded that the subsidy increased the COBRA take-up rate by at least one-third—from 12 percent to 18 percent in the 2009 survey and from 20 percent to 33 percent in the 2010 survey.

One of the policy issues raised by the subsidy is the extent to which it applied to the purchase of COBRA coverage by persons who would have bought the coverage without the subsidy. A 2003 study by Kanika Kapur and Susan Marquis of the impact of several subsidies for the purchase of health insurance by laid-off workers sheds some light on the question. They found that 59 percent of COBRA-eligible workers who were involuntarily terminated in 1996 and 2002 bought private health insurance after losing their jobs. According to Kapur and Marquis, this finding implied that much of the revenue cost of any COBRA premium subsidy could end up reducing the cost of health insurance coverage for individuals who would have remained insured in any event.

Selected Bibliography

"2009 COBRA Survey: Recession Takes Hold: More Were Eligible, Fewer Elected, Costs Stay High," *Benefits News*, Commerce Clearing House, June 12, 2009.

Ceridian Corporation, "Ceridian analyzes COBRA enrollments in light of a premium subsidy in the American Recovery and Reinvestment Act of 2009 (ARRA): Complexity and added restrictions may have limited the program's impact," 2009.

Kapur, Kanika and Susan Marquis. "Health Insurance For Workers Who Lose Jobs: Implications of Various Subsidy Schemes." *Health Affairs*, v. 22, no. 3 (2003), pp. 203-213.

Kinzer, Janet and Meredith Peterson, *Health Insurance Continuation Coverage Under COBRA*, Congressional Research Service Report R40142.

"One-Third Of Eligible Employees Take COBRA Subsidy, According To Preliminary Results In Spencer Survey," *Benefits News*, Commerce Clearing House, June 6, 2010.

Schwartz, Karyn, *The COBRA Subsidy and Health Insurance for the Unemployed*, Kaiser Commission on Medicaid and the Uninsured, Kaiser Family Foundation, Washington: April 2010.

Health

TAX CREDIT FOR SMALL BUSINESSES PURCHASING EMPLOYER INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.9	0.3	2.2
2012	4.1	0.6	4.7
2013	4.7	0.7	5.4
2014	6.0	0.9	6.9
2015	7.3	1.1	8.4

Authorization

Section 45R

Description

Small businesses with less than 25 full-time equivalent employees and/or with average wages less than \$50,000 may be eligible for a credit of 50 percent of the employer's payment for two years (35 percent for tax exempt entities), beginning in 2014. There is a transitional credit of 35 percent (25 percent for tax exempt entities) for 2010-2013 as well. The employer must pay 50 percent of the health plan cost. The credit is against income tax, so small employers without tax liability will receive no current benefit and small employers with inadequate tax liability will not receive the full current benefit. Credits can be carried backward one year (except in the first year offered) and forward 20 years plus another year.

The credit is phased out both by size and average income in an additive fashion. The credit is reduced by the number of employees over 10, divided by 15; the credit is also reduced by average wages over \$25,000 divided by \$25,000. A business with 10 or fewer employees and \$25,000 or less in average wages will receive a credit of 50 percent. If the wages remain at \$25,000 or less but employee size rises to 15, the credit is reduced by 33.3

percent (15 minus 10, all divided by 15, or 1/3) or, for a 50 percent credit, to 33.3 percent. If average wages are \$30,000 but size is 10 or less, the credit is reduced by 20 percent (\$30,000 minus \$25,000, all divided by \$25,000), or, for a 50 percent credit to 40%. If both occur, both phase outs are added, so that a firm with 15 employees and \$30,000 in average wages both the 33.3 percent and the 20 percent apply for a reduction of 53.3%. This phaseout would reduce the 50 percent credit to 23.3 percent.

Impact

This provision reduces the cost of providing employer provided health insurance coverage for some small employers. According to 2006 Census Bureau data, this provision could provide a credit to more than 90 percent of all U.S. businesses. These businesses employ approximately one-fifth of U.S. workers.

Rationale

This provision was enacted as part of the Patient Protection and Affordable Care Act (P.L. 111-148), in combination with the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152) in order to offset the cost to small business of providing health insurance coverage for their employees.

Assessment

The Council of Economic Advisors (CEA) asserted that the tax credit is broadly available and offsets the discrepancy between the cost of health insurance provided by small and large employers. Specifically, the CEA estimates that four million small businesses are eligible for the credit if they provide health care to their workers. In addition, they state that this credit offsets the estimated 18 percent difference that small businesses pay to provide health care insurance to their employees—which may encourage entrepreneurship through a reduction the cost of obtaining health insurance as a small business.

Although 4.4 million taxpayers were potentially eligible, the Internal Revenue Service indicated 220,00 taxpayers claimed \$228 million in credits in 2010, according to the Department of the Treasury's Inspector General. A 2012 report by the Government Accountability Office (GAO) indicated an even smaller number of beneficiaries, 170,300 and a total of \$468 million. GAO suggested that the credit was not as popular as expected because it was not big enough to induce firms to offer

insurance, many firms that did offer insurance had too many employees opt out, and the credit was so complicated that the compliance costs eliminated a lot of the benefits.

This credit, however, is not available to all businesses. In addition to those disqualified by the size and average wage limitations, firms with insufficient or no tax liability receive limited or no benefit from the provision—thus reducing the effectiveness of the credit in increasing the provision of employer provided health insurance by small firms.

Selected Bibliography

Chaikind, Hinda, Summary of Small Business Health Insurance Tax Credit Under the Patient Protection and Affordable Care Act (PPACA), Library of Congress, CRS Report R41158, 2011.

Fairlie, Robert W. and Kanika Kapur, "Is Employer-Based Health Insurance a Barrier to Entrepreneurship?," *Journal of Health Economics*, v. 30, no. 1, September 21, 2010.

Harrington, Scott E., "U.S. Health-care Reform: The Patient Protection and Affordable Care Act," *The Journal of Risk and Insurance*, v. 33, no. 3, pp. 703-8, September 2010.

Herring, Bradley and Mark V. Pauly, "Play-or-Pay" Insurance Reforms for Employers — Confusion and Inequity," *New England Journal of Medicine*, January 14, 2010.

Gravelle, Jane G., *Health Care Reform and Small Business*, Library of Congress, CRS Report R40775, 2010.

- U.S. Congress, Joint Committee on Taxation, Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010," As Amended, in Combination with the "Patient Protection and Affordable Care Act", committee print, 111th Cong., March 21, 2010, JCX-18-10, pp. 134-136.
- U.S. Department of the Treasury, "Administration Releases New Information on Affordable Care Act's Small Business Health Care Tax Credit: New Guidance Gives Small Employers Full Set of Tools to Claim Credit for 2010; Credit Covers Up To 35 Percent of Small Employers' Health Care Contributions," December 2, 2010.
- U.S. Department of The Treasury Inspector General for Tax Administration, Affordable Care Act: Efforts to Implement the Small Business Health Care Tax Credit Were Mostly Successful, but Some Improvements Are Needed, 2011-40-103, September 19, 2011, at:
- http://www.treasury.gov/tigta/auditreports/2011reports/201140103fr.pdf.
- U.S. Government Accountability Office, Small Employer Health Tax Credit: Factors Contributing to Low Use and Complexity, GAO-12-549, 2012, at http://www.gao.gov/assets/600/590832.pdf.

Health

CREDITS AND SUBSIDIES FOR PARTICIPATION IN EXCHANGES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	**	-	*
2012	-	-	*
2013	-	ess.	-
2014	25.5	-	25.5
2015	52.4	-	52.4

Authorization

Section 36B.

Description

Beginning in 2014, the Patient Protection and Affordable Care Act of 2010 (PPACA) imposes a penalty for individuals and families without health insurance and establishes exchanges which limit premium differences for purchase of individual health insurance by those not covered by employer plans. PPACA includes a refundable tax credit to reduce the cost of health insurance premiums purchased through exchanges.

The low-income premium assistance credit provides a tax benefit to limit the cost of premiums to a fixed percentage of income. For individuals and families with income of no more than 133 percent of the federal poverty level (FPL), credits are provided to limit the premium to 2 percent of income. The premium is limited to 3 to 4, 4 to 6.3, 6.3 to 8.05, and 8.05 to 9.5 percent respectively for individuals and families at 133 to 150, 150 to 200, 200 to 250 and 250 to 300 percent of FPL. For incomes that are 300 to 400 percent of FPL, the premium costs are limited to 9.5 percent of income. The payment is made directly to the insurance plan. For purposes of the credit, income is

adjusted gross income plus excluded income earned abroad (Section 911) and tax-exempt interest.

Participants must provide information from the previous two years of tax returns. The individual cannot be eligible for other coverage, including Medicare, Medicaid, the Children's Health Insurance Program (CHIP), military coverage, a grandfathered plan or any other coverage designated by the Secretary of the Treasury. Individuals who are offered minimum essential coverage by employers are also not eligible unless the coverage is unaffordable (employee premiums are more than 9.5 percent of income) or the employer's share is less than 60 percent, and the employee declines the insurance.

The credit can be applied to any plan but is measured as the difference between the cost of a silver plan and the amount of the premium limited by the income level. The credit is payable in advance directly to the insurer. It is not taxable to individuals and families.

Impact

The premium credit reduces the cost of health insurance premiums in the new health plan. According to data provided by the Congressional Budget Office, of the 29 million individuals and families expected to be enrolled in exchanges, 66 percent (19 million) will receive premium credits: 63 percent without employer coverage and 3 percent with unaffordable employer coverage. Thus a large number of families will benefit from the subsidies, which will be concentrated in households with low or moderate income. For example, the current 400 percent of FPL level for a family of three (excluding Alaska and Hawaii) is \$73,240.

Rationale

This provision was enacted as part of the Patient Protection and Affordable Care Act (P.L. 111-148), in combination with the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152). The objective of the legislation is to provide near universal health coverage. The premium credit is provided to relieve the financial burden of health insurance premiums on lower and moderate income individuals.

In June 2012, the Supreme Court's ruling in NFIB v. Sebelius , found the Act, including the penalties under the individual mandate, to be constitutional.

Assessment

The premium assistance credits not only provide relief from the financial burden of health insurance, but also create incentives for lower and moderate income families to purchase health insurance. Although insurance purchase is not mandatory, penalties are imposed if insurance is not purchased. Since the penalties are generally smaller than the cost of insurance for low income families, without premium assistance, some families may find it more feasible to pay the penalty.

As with certain other tax expenditures (such as the earned income credit or the tuition tax credit), the tax system is used as a delivery mechanism to achieve goals of programs (such as education, health and income transfers) that could be provided through other mechanisms. While using the tax system increases the complexity of tax administration, the tax system has some administrative advantages. As compared to an alternative delivery system (where, for example, monthly income is used), tax administration allows subsidies to be based on annual family income. The credit also avoids some of the drawbacks of certain tax benefits, by providing the benefits in advance and directly to the insurer rather than requiring these families to pay and then apply for a refund.

Selected Bibliography

Angeles, January, Making Health Care More Affordable: The New Premium and Cost-Sharing Credits, *Center on Budget Policies and Priorities*, May 19, 2010.

Chaikind, Hinda, *Individual Mandate and Related Information Requirements under PPACA*, Library of Congress, CRS Report R41331, 2012.

Fernandez, Bernadette and Thomas Gabe, Health Insurance Premium Credits in the Patient Protection and Affordable Care Act, Library of Congress, CRS Report R41137, 2012.

Gruber, Jonathan and Ian Perry, Realizing Health Reform's Potential: Will the Affordable Care Act Make Health Insurance Affordable? The Commonwealth Fund, April 2011 at:

http://www.commonwealthfund.org/~/media/Files/Publications/Issue%20Brief/2011/Apr/1493_Gruber_will_affordable_care_act_make_hlt_ins_affordable_reform_brief_v2.pdf.

Harrington, Scott E., "U.S. Health-care Reform: The Patient Protection and Affordable Care Act," *The Journal of Risk and Insurance*, v. 33, no. 3, September 2010 pp. 703-8.

- Lunder, Erika K. and Jennifer Staman, NFIB v. Sebelius: Constitutionality of the Individual Mandate, Library of Congress, CRS Report R42698, September 3, 2012.
- U.S. Congress, Congressional Budget Office, Letter to Speaker Pelosi, PPACA Cost Estimate, March 20, 2010. http://www.cbo.gov/ftpdocs/113xx/doc11379/AmendReconProp.pdf.
- U.S. Congress, Joint Committee on Taxation, Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010," As Amended, in Combination with the "Patient Protection and Affordable Care Act", committee print, 111th Cong., March 21, 2010, JCX-18-10, pp. 134-136.

Medicare

EXCLUSION OF UNTAXED MEDICARE BENEFITS: HOSPITAL INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	30.3	-	30.3
2012	31.4	-	31.4
2013	37.2	-	37.2
2014	38.8	-	38.8
2015	39.4	-	39.4

Authorization

Rev. Rul. 70-341, 1970-2 C.B. 31.

Description

The Medicare program has four main components: Parts A, B, C, and D. Part A offers hospital insurance (HI). It covers most of the cost of inpatient hospital care and as much as 100 days a year of skilled nursing facility care, home health care, and hospice care for individuals who are age 65 and over or disabled. In 2011, 48.3 million aged and disabled persons were enrolled in Part A, and payments for Part A benefits totaled an estimated \$253 billion.

Medicare Part A is financed primarily by a payroll tax levied on the earnings of current workers. The tax rate is 2.90 percent, and there is no ceiling on the earnings subject to the tax. Self-employed individuals pay the full rate, while employees and employers each pay 1.45 percent. Beginning in 2013, an additional 0.9 percent payroll tax will be levied on worker's wages over \$200,000 single and \$250,000 married. The revenue from the payroll tax is placed in a trust fund, from which payments are made to health care providers for current Medicare beneficiaries. Such a financing scheme allows individuals to contribute to the fund during their working years so they can receive Part A benefits premium-free during their retirement years

(if they or their spouse have at least 40 quarters of Medicare-covered employment).

The employer's share of the payroll tax is excluded from an employee's taxable income. Moreover, the expected lifetime value of Part A benefits under current law generally exceeds the amount of payroll tax contributions made by current beneficiaries during their working years. These excess benefits are excluded from the taxable income of Medicare Part A beneficiaries.

Impact

All Medicare Part A beneficiaries are assumed to receive the same dollar value of in-kind insurance benefits per year. But in reality, there is substantial variation among individuals in the portion of those benefits covered by their payroll tax contributions — or the portion considered an untaxed benefit.

The portion of benefits received by a Medicare beneficiary considered untaxed depends on his or her history of taxable earnings and life expectancy at the time benefits are received. Untaxed benefits are likely to be larger for persons who became eligible in the earliest years of the Medicare program, for persons who had low taxable wages in their working years or who qualified as a spouse with little or no payroll contributions of their own, and for persons who have a relatively long life expectancy. Beyond these considerations, the tax expenditure arising from one dollar of untaxed insurance benefits also depends on a beneficiary's marginal income tax rate during retirement.

Rationale

The exclusion of Medicare Part A benefits from the federal income tax has never been established or recognized by statute. Although the Medicare program was created in 1965, the Internal Revenue Service waited until 1970 to rule (Rev. Rul. 70-341) that the benefits under Part A of Medicare may be excluded from gross income because they are in the nature of disbursements intended to achieve the social welfare objectives of the federal government. The ruling also stated that Medicare Part A benefits had the same legal status as monthly Social Security payments to an individual, in determining an individual's gross income under section 61 of the Internal Revenue Code. An earlier IRS ruling (Rev. Rul. 70-217, 1970-1 C.B. 13) allowed these payments to be excluded from gross income.

Assessment

In effect, the tax subsidy for Part A benefits lowers the after-tax cost to the elderly for those benefits. As a result, it has the potential to divert more federal resources to the delivery of medical care through more costly services (rather than other cost-effective alternatives) than otherwise might be the case.

Those who favor curtailing this subsidy, as a means of increasing federal revenue or reducing use of more costly services, would find it difficult to do so in an equitable manner for two reasons. First, Medicare benefits receive the same tax treatment as most other health insurance benefits: they are untaxed. Second, taxing the value of the health care benefits actually received by an individual would have the largest impact on people who suffer health problems that are costly to treat; many of these individuals are elderly and living on relatively small fixed incomes.

Under the Omnibus Budget Reconciliation Act of 1993 (OBRA93), a portion of the Social Security payments received by taxpayers whose socalled provisional income exceeded certain income thresholds was subject to taxation, and the revenue was deposited in the HI trust fund. A taxpaver's provisional income is his or her adjusted gross income, plus 50 percent of any Social Security benefit and the interest received from tax-exempt bonds. If a taxpayer's provisional income falls between income thresholds of \$25,000 (\$32,000 for a married couple filing jointly) and \$34,000 (\$44,000 for a married couple), then the portion of Social Security benefits that are taxed is the lesser of 50 percent of the benefits or 50 percent of provisional income above the first threshold. If a taxpayer's provisional income is greater than the second threshold, then the portion of Social Security benefits subject to taxation is the lesser of 85 percent of the benefits or 85 percent of provisional income above the second threshold, plus the smaller of \$4,500 (\$6,000 for married couples) or 50 percent of benefits. (See the entry on the exclusion of untaxed Social Security and railroad retirement benefits for more details). The same rules apply to railroad retirement tier 1 benefits.

Before 1991, the taxable earnings base for Medicare Part A was the same as the earnings base for Social Security. But the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508) differentiated the two bases by raising the annual cap on employee earnings subject to the Medicare HI tax to \$125,000 in 1991 and indexing it for inflation in succeeding years. OBRA93 eliminated the cap on wages and self-employment income subject to the Medicare HI tax, as of January 1, 1994.

In adopting changes in the HI payroll tax in 1990 and 1993, Congress chose a more progressive approach to financing the HI trust fund than the chief alternative of raising HI payroll tax rates on the Social Security earnings base. More recently, the additional 0.9 percent payroll tax enacted under ACA for high wage earners, increases the progressivity of the financing.

For future retirees, the share of HI benefits they receive beyond their payroll tax contributions is likely to decrease gradually over time, as the contribution period will cover more of their work years. In addition, the absence of a cap on worker earnings subject to the Medicare HI payroll tax means that today's high-wage earners will contribute more during their working years and consequently receive a smaller (and possibly negative) subsidy once they begin to receive Medicare Part A benefits.

Selected Bibliography

Bryant, Jeffrey J. "Medicare HI Tax Becomes a Factor in Planning for Compensation and SE Income," *The Journal of Taxation*. January, 1995, pp. 32-34.

Christensen, Sandra. "The Subsidy Provided Under Medicare to Current Enrollees," *Journal of Health Politics, Policy, and Law*, v. 17, no. 2. Summer 1992, pp. 255-64.

Davis, Patricia A. *Medicare: A Primer*. Library of Congress, Congressional Research Service Report RL33712, Washington, DC: (2012).

Steuerle, Eugene C. "Taxing the Elderly on Their Medicare Benefits," *Tax Notes*, vol. 76, no. 3, July 21, 1997, pp. 427-428.

— . "Are You Paying Your Fair Share for Medicare," The Government We Deserve, Urban Institute, Washington, D.C. January 6, 2011.

Steuerle, Eugene and Caleb Quakenbush "Social Security and Medicare Taxes and Benefits over a Lifetime," 2012 Update, Urban Institute, Washington, D.C. October 2012.

Scott, Christine and Janemarie Mulvey. Social Security: Calculation and History of Taxing Benefits. Library of Congress, Congressional Research Service Report RL32552, Washington, DC: (2012)

U.S. Congress, Congressional Budget Office. *Budget Options*. Washington, DC: February 2001, p. 412.

Medicare

EXCLUSION OF MEDICARE BENEFITS: SUPPLEMENTARY MEDICAL INSURANCE

Estimated Revenue Loss

[In billions of dollars]

		1			
_	Fiscal year	Individuals	Corporations	Total	
	2011	21.2	=	21.2	_
	2012	23.2	-	23.2	
	2013	28.6	-	28.6	
	2014	29.3	-	29.3	
	2015	30.9	-	30.9	

Authorization

Rev. Rul. 70-341, 1970-2 C.B. 31.

Description

The Medicare program has four main components: Parts A, B, C and D. Part B of Medicare provides supplementary medical insurance (SMI). Among the services covered under Part B are certain physician services, outpatient hospital services, and durable medical equipment. The program generally pays for 80 percent of Medicare's fee schedule or other approved amounts after a beneficiary satisfies an annual deductible, which is \$140 in 2012.

According to the 2012 report by the Boards of Trustees of the Medicare trust funds, 44.8 million aged and disabled Americans were enrolled in SMI, and payments for SMI benefits totaled about \$222 billion in 2011.

Unlike Part A of Medicare, participation in SMI is voluntary. Medicare Part B is financed mostly from federal general revenues, with beneficiaries' premiums set to cover 25% of estimated Part B program costs for the aged. The 2012 monthly premium is \$99.90 for most Medicare Part B enrollees, and individuals who receive Social Security benefits have their Part B premium payments automatically deducted from their Social Security benefit

checks. Since 2007, higher-income enrollees pay higher premiums. In 2012, individuals whose modified adjusted gross income (MAGI) exceeds \$85,000 and each member of a couple filing jointly whose MAGI exceeds \$170,000 are subject to higher premium amounts. These premiums range from 35% to 80% of the value of Part B, affecting about 4% of Medicare beneficiaries. Under current law, the income thresholds used to determine which beneficiaries are subject to higher Part B premium rates will be frozen at 2010 levels through 2019 which is expected to lead to a larger number of beneficiaries paying the higher premium.

Transfers from the general fund of the U.S. Treasury to pay for the cost of covered services are excluded from the taxable income of enrollees.

Impact

The tax expenditure associated with this exclusion depends on the marginal tax rates of enrollees. Unlike many other tax expenditures (where the amount of the subsidy can vary considerably among individual taxpayers), the general-fund premium subsidy for SMI is the same for most eligible individuals. All enrollees are assumed to receive the same dollar value of in-kind benefits, and all but the upper-income Medicare beneficiaries are charged the same monthly premium. As a result, most enrollees receive the same amount of the subsidy, which is measured as the difference between the value of insurance benefits and the premium. But the tax savings from the exclusion are greater for enrollees in higher tax brackets. This may be partially offset by income-related premiums under current law. Taxpayers who claim the itemized deduction for medical expenses under section 213 may include any Part B premiums they pay out of pocket or have deducted from their monthly Social Security benefits.

Rationale

The exclusion of Medicare Part B benefits has never been established or recognized by statute. Rather, it emerged from two related regulatory rulings by the Internal Revenue Service (IRS).

In 1966, the IRS ruled (Rev. Rul. 66-216) that the premiums paid for coverage under Part B may be deducted as a qualified medical expense under section 213. The ruling did not address the tax treatment of the medical benefits received through Part B.

Four years later, the IRS did address this issue. In Rev. Rul. 70-341, the agency held that Medicare Part B benefits could be excluded from taxable

income because they have the same status under the tax code as "amounts received through accident and health insurance for personal injuries or sickness." These amounts were (and still are) excluded from taxable income under section 104(a).

Rev. Rul. 70-341 did not address the issue of whether the exclusion of Part B benefits applied to all such benefits, or only to the portion of benefits financed out of premiums. Nevertheless, the exclusion has applied to all Part B benefits (including the portion financed out of general revenues) since 1970.

This treatment is supported by the same rationale used by the IRS to justify the exclusion of Medicare Part A benefits from the gross income of beneficiaries. In Rev. Rul. 70-341, the agency noted that the benefits received by an individual under Part A are not "legally distinguishable from the monthly payments to an individual under title II of the Social Security Act." It also pointed out that the IRS had held in an earlier revenue ruling (Rev. Rul. 70-217) that monthly Social Security payments should be excluded from the gross income of recipients, as they are "made in furtherance of the social welfare objectives of the federal government." So the IRS concluded that the "basic Medicare benefits received by (or on behalf of) an individual under part A title XVIII of the Social Security Act are not includible in the gross income of the individual for whom they are paid."

Assessment

Medicare benefits are similar to most other health insurance benefits in that they are exempt from taxation.

Initially, Part B premiums were set to cover 50 percent of projected SMI program costs. But between 1975 and 1983, that share gradually shrank to less than 25 percent. From 1984 through 1997, premiums were set to cover 25 percent of program costs under a succession of laws. A provision of the Balanced Budget Act of 1997 (P.L. 105-33) and subsequent amending legislation permanently fixed the Part B monthly premium at 25 percent of projected program costs. More recently, the Medicare Modernization Act of 2003 (P.L. 108-173) imposed income-related premiums for Part B starting in 2007.

While the tax subsidy for Part B reduces the after-tax cost of medical insurance for retirees, the addition of an income-related premium has

partially reduced the tax subsidy for higher-income beneficiaries. One consequence of a lower after-tax cost of medical insurance for most beneficiaries is that they may be encouraged to purchase excessive health insurance coverage and use inefficient amounts of health care.

Some have proposed adding the value of the subsidy to taxable income. Under the proposals, all revenues from taxing the subsidy would be added to the Medicare SMI Trust Fund. An individual would be permitted to deduct the recaptured subsidy in the same manner that he or she is allowed to deduct other health insurance premiums paid out of pocket. Any reimbursement of the recaptured amount by a former employer would be excluded from a recipient's taxable income.

Recent efforts to income-relate the premiums for Part B reduced the tax subsidy for high income households. Attempts to recapture the subsidy from lower and middle income beneficiaries may impose an added tax burden on those who have little flexibility in their budgets to absorb higher taxes.

Selected Bibliography

Christensen, Sandra. "The Subsidy Provided Under Medicare to Current Enrollees," *Journal of Health Politics, Policy, and Law*, v. 17, no. 2. summer 1992, pp. 255-64.

Davis, Patricia A. *Medicare: A Primer*. Library of Congress, Congressional Research Service Report RL32582. Washington, DC: (2012).

— *Medicare: Part B*, Library of Congress, Congressional Research Service Report R40082. Washington, DC:(2012).

Steuerle, Eugene. "Taxing the Elderly on Their Medicare Benefits." *Tax Notes*, vol. 76, no. 3, July 21, 1997, pp. 427-428.

Steuerle, Eugene and Caleb Quakenbush "Social Security and Medicare Taxes and Benefits over a Lifetime," 2012 Update, Urban Institute, Washington, D.C. October 2012.

U.S. Congress. Congressional Budget Office. *Budget Options*. Washington, DC: February 2001, p. 412.

Wilensky, Gail R. "Bite-Sized Chunks of Health Care Reform – Where Medicare Fits In," in Henry J. Aaron, *The Problem That Won't Go Away*. Washington, DC: The Brookings Institution, 1996.

Medicare

EXCLUSION OF MEDICARE BENEFITS: PRESCRIPTION DRUG BENEFIT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	6.1	-	6.1
2012	6.6	-	6.6
2013	7.3	-	7.3
2014	8.1	-	8.1
2015	9.0	-	9.0

Authorization

Rev. Rul. 70-341, 1970-2 C.B. 31.

Description

The Medicare program has four main components: Parts A, B, C, and D. Part D provides an outpatient prescription drug benefit, which went into effect on January 1, 2006. The benefit is offered through stand-alone private prescription drug plans (PDPs) and Medicare Advantage (MA) plans, such as health maintenance organizations, that provide all Medicare benefits, including coverage for outpatient prescription drugs. These are referred to as MA-PD plans (i.e., MA plans with prescription drug coverage). Unlike other Medicare services, Medicare beneficiaries can obtain the drug benefit only by enrolling in one of those plans, which are open to anyone entitled to Medicare Part A and/or enrolled in Medicare Part B.

Part D plans offer either a defined standard benefit or an alternative benefit that is actuarially equivalent. They may also offer enhanced benefits. In 2012, the standard benefit includes a \$320 deductible and 25-percent coinsurance for total drug costs between \$320 and \$2,930. There is a coverage gap beyond this limit until a beneficiary has accumulated \$4,700 in out-of-pocket costs (\$6,657 in total spending). Once that catastrophic limit is

reached, the program covers all drug expenses, except for nominal cost sharing. Beginning in 2011, the coverage gap is being gradually reduced until it is eliminated in 2020. Most plans offer actuarially equivalent benefits rather than the standard benefit. Part D plans vary in benefit design, covered drugs, the use of utilization management tools, and monthly premiums. All plans are required to provide beneficiaries with access to negotiated prices for covered drugs.

Unlike Part A of Medicare, participation in Part D is voluntary, with the exception of individuals who are eligible both for Medicare and Medicaid (so-called "dual eligibles") and certain other low-income Medicare beneficiaries who are automatically enrolled in a PDP if they do not select one on their own.

In 2011, 35.7 million aged and disabled beneficiaries were enrolled in Part D drug plans. Enrollees pay monthly premiums that vary among plans and regions. The base premium for 2012 is \$31.08 a month. On the whole, beneficiary premiums represent 25.5% of the cost of the standard benefit. Medicare subsidizes the remaining 74.5 percent, based on bids submitted by plans for their expected benefit payments in the coming year. Similar to Part B, premiums increase for higher-income enrollees. In 2012, individuals whose modified adjusted gross income (MAGI) exceeds \$85,000 single and \$170,000 joint filers are subject to higher premium amounts. These income thresholds will be frozen at current levels through 2019.

Federal assistance with premiums, cost-sharing, and other out-of-pocket expenses is available for beneficiaries with low incomes (below \$15,080 for individuals in 2012) and modest assets (below \$6,940 for individuals in 2012).

Expenditures on Part D benefits totaled \$66.7 billion in 2011. The amount depends primarily on the number of enrollees, their health status and drug use, the number of recipients of low-income subsidies, and the extent to which plans negotiate discounts and rebates with drug companies and control costs by promoting the use of generic drugs and mail-order pharmacies.

In keeping with the tax treatment of benefits received by beneficiaries under Parts A and B of Medicare, transfers from the general fund of the U.S. Treasury and state governments to pay for the cost of the drug benefit not covered by premiums are excluded from the taxable income of enrollees.

Impact

In essence, the exclusion reduces the after-tax cost to enrollees of using covered drugs. As such, it promotes a central aim of Part D: expanding access to affordable prescription drugs among the Medicare population.

The tax expenditure arising from the exclusion depends on the marginal tax rates of enrollees and the subsidies they receive. Both factors can vary considerably among individuals. In this case, the subsidy is measured as the average difference between the value of benefits received by enrollees and the premiums they pay. When premiums were not adjusted by income (prior to 2011), for a given subsidy amount, the tax savings from the exclusion were greater for enrollees in the highest tax bracket than for enrollees in the lowest tax bracket. By income relating premiums, the tax subsidy for higher income beneficiaries is partially reduced. Enrollees who claim the itemized deduction for medical expenses under section 213 may include their payments for Part D premiums.

Rationale

Part D was added to Medicare by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (P.L. 108-173), following years of sporadic debate in Congress over establishing such a benefit. It was intended to expand access to outpatient prescription drugs among the Medicare population, restrain their spending on drugs, and contain program costs through heavy reliance on private competition and enrollee choice.

The Medicare Improvements for Patients and Providers Act of 2008 (P.L. 110-275), which became law on July 15, 2008, made a few modifications to the Part D program.

More recently, the Patient Protection and Affordable Care Act (ACA,P.L. 111-148) made several significant changes to the design of the Part D drug benefit. ACA imposed income-related premiums similar to Part B. In addition, ACA included a phaseout of the coverage gap by 2020; and manufacturer discounts of 50% for brand-name drugs during the coverage gap, among other changes.

The exclusion of Medicare benefits has never been embedded in statute. Rather, it emerged from two related regulatory rulings by the Internal Revenue Service (IRS). In 1966, the IRS held in Rev. Rul. 66-216 that premiums paid for coverage under Part B could be deducted as a qualified medical expense under section 213. Four years later, the agency ruled (Rev.

Rul. 70-341) that Part B benefits could be excluded from gross income because they had the same status under the tax code as "amounts received through accident and health insurance for personal injuries and sickness." Those amounts were (and still are) excluded from taxable income under section 104(a).

Assessment

Medicare benefits receive the same tax treatment as other health insurance benefits: they are exempt from taxation. In the case of the drug benefit under Part D, this treatment has the effect of reducing the after-tax cost to enrollees of the drugs they use. Making drugs more affordable for beneficiaries is one of the primary objectives of the program.

There is some evidence that Part D has made progress toward reaching some of its main objectives. In 2011, the 2012 Report of the Medicare Trustees stated that 73 percent of Medicare beneficiaries were enrolled in a Part D plan, and that about 90 percent of beneficiaries had drug coverage through Medicare or equivalent coverage from their employer. The number of beneficiaries with drug coverage rose from 24 million to nearly 49 million between 2006 and 2011.

Selected Bibliography

Davis, Patricia A., et al. *Medicare Primer*, Library of Congress, Congressional Research Service Report R40425, Washington, DC: (2012).

- Medicare Provisions in the Patient Protection and Affordable Care Act (PPACA), Summary and Timeline, Library of Congress, Congressional Research Service, Washington, D.C. (2012).

Frank, Richard G. and Joseph P. Newhouse. "Should Drug Prices Be Negotiated Under Part D of Medicare? If So, How?" *Health Affairs*, vol. 27, no. 1, January/February 2008, pp. 33-43.

- . Mending the Medicare Prescription Drug Benefit: Improving Consumer Choices and Restructuring Purchases. Brookings Institution, Hamilton Project, Washington, DC: April 2007.

Lichtenberg, Frank R. and Shawn X. Sun. "The Impact of Medicare Part D on Prescription Drug Use by the Elderly." *Health Affairs*, vol. 26, no. 6, November/December 2007, pp. 1735-1744.

Steuerle, C. Eugene. "Taxing the Elderly on Their Medicare Benefits." *Tax Notes*, vol. 76, no. 3, July 21, 1997, pp. 427-428.

Medicare

EXCLUSION OF SUBSIDY PAYMENTS TO EMPLOYERS MAINTAINING PRESCRIPTION DRUG BENEFITS FOR RETIREES ELIGIBLE FOR MEDICARE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	58m	0.5	0.5
2012	-	0.5	0.5
2013	-	0.3	0.3
2014	-	-	-
2015	-	-	-

Authorization

Section 139A and Section 1860D-22 of the Social Security Act (42 U.S.C. 1395w-132).

Description

The Medicare program has four components: Parts A, B, C, and D. Part D offers a voluntary outpatient prescription drug benefit that began on January 1, 2006. Every individual enrolled in Medicare Parts A and/or B, or who receives Medicare benefits through a private health plan under Part C, is eligible to enroll in a qualified prescription drug plan.

Part D prescription drug coverage is provided through private prescription drug plans (PDP's), which offer only prescription drug coverage, or through Medicare Advantage prescription drug plans (MA-PD), which offers prescription drug coverage that is integrated with the health care coverage they provide to Medicare beneficiaries under Part C. Most enrollees pay premiums intended to cover 25.5 percent of the overall cost of standard drug benefits under Part D, and the premiums are income-related for higher income beneficiaries.

Employers or unions are offered a significant incentive to continue to offer drug coverage to their retirees through a 28 percent federal subsidy for employers who provide their Medicare-eligible retirees with prescription drug coverage that meets or exceeds federal standards. This subsidy is known as the Retiree Drug Subsidy (RDS). In 2012, the maximum potential subsidy per covered retiree was \$1,730.40. Employers or unions may select an alternative option (instead of taking the subsidy) with respect to Part D, such as electing to pay a portion of the Part D premiums. Alternatively, employers or unions may contract with a PDP or MA-PDP to offer the coverage or become a Part D plan sponsor themselves for their retirees.

Prior to 2013, employers who chose to receive RDS payments have been allowed to exclude them from their taxable income under both the regular income tax and the alternative minimum tax. In addition, an employer may disregard any subsidy it receives in calculating its deduction for health benefits for current employees and retirees. Their exclusion from taxable income is considered a tax expenditure, albeit one that is scheduled to terminate at the end of 2012. For tax years starting on or after January 1, 2013, employers will be required to reduce that deduction by the amount of any subsidy received, subjecting the subsidy to taxation.

Impact

Generally, all sources of income are subject to taxation. Section 61 of the IRC identifies the sources of income that usually are taxed, including employee compensation, capital gains, interest, and dividends. Some sources of income, however, are granted a statutory exemption from taxation, including certain death benefits, interest on state and local bonds, amounts received under employer accident and health plans, certain other fringe benefits, and disaster relief payments. Sections 101 to 140 identify those sources and explain their tax treatment. Medicare subsidy payments to employers are one of these sources: section 139A.

In combination, the subsidy and its preferential tax treatment significantly reduce the after-tax cost to employers and unions of providing qualified prescription drug benefits to retirees eligible for Medicare. Because of the exclusion, the total benefit for an employer is based on the size of the subsidy and their marginal tax rate.

Rationale

In passing the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA, P.L. 108-173), Congress added a voluntary outpatient prescription drug benefit to Medicare. Among other things, the act authorized Medicare to make subsidy payments to employers providing qualified prescription drug benefits to retirees eligible for Medicare but not enrolled in a Part D drug plan or a Part C Medicare Advantage plan. MMA also permitted employers receiving such payments to exclude them from taxable income and to disregard the subsidy in calculating their deductions for contributions to employee health and accident plans.

The subsidy payments and their preferential tax treatment were mainly intended to keep large numbers of employers and unions from dropping coverage of prescription drugs from their health benefits for Medicare-eligible retirees. Such a step would leave many beneficiaries with the choices of enrolling in the Medicare outpatient drug program or having no coverage for outpatient prescription drugs. During congressional consideration of the bill that became MMA, supporters of the subsidy maintained that it would save the federal government money over time and give many retirees access to prescription drug coverage that is superior to what they would be likely to obtain through any Part D plan.

Under the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended), an employer is required to reduce its deduction for retiree health benefits by the amount of any subsidy it receives under Part D, effective January 1, 2013. This will have the effect of taxing the subsidy payments at an employer's marginal tax rate. At the same time, ACA, made several changes to the Medicare Part D program that reduced beneficiary out-of-pocket costs for Part D. Starting in 2011, consistent with a voluntary agreement with the pharmaceutical industry, Part D enrollees are provided discounts of 50% for brand-name drugs during the coverage gap. In addition, a one-time rebate of \$250 was provided to enrollees who entered the coverage gap in 2010. ACA phases out the Part D doughnut hole by gradually reducing the cost-sharing during the coverage gap for both brand-name and generic drugs until it equals 25% of the negotiated

price of the drug in 2020 (similar to cost-sharing under the initial coverage limit). ACA also reduces the rate of growth of the coverage gap from 2014 through 2019. ACA, however, raised premiums for higher-income beneficiaries. Specifically, ACA increases Part D premiums for higher income enrollees; the income thresholds are to be set at the same level and in the same manner as those used to establish Part B premiums.

Assessment

The Medicare Part D prescription drug benefit became available as the prevalence of employer health benefits for retirees was declining. In addition, retirees who received health benefits from former employers have had to pay a rising share of the premium for those benefits, as well as higher co-payments and deductibles. Driving these trends were persistent double-digit increases in the cost to employers of providing those benefits. In the congressional debate over the creation of a Medicare outpatient drug benefit, some lawmakers were concerned that the creation of such a benefit would accelerate the erosion in retiree health benefits. To allay this concern, the law establishing the benefit included several significant incentives for employers to continue to provide, or to enhance, drug benefits for their Medicare-eligible retirees, such as the tax-free subsidy payments.

However, while the exclusion can substantially boost the value of the subsidy payments to recipients, it also entails a revenue loss that increases the total cost to the federal government of the Part D employer subsidies. The extent of the revenue loss in a particular year hinges on the number of employers getting the subsidy, their marginal tax rates, and the total amount of subsidy payments they receive. JCT estimated that the elimination of this subsidy under ACA would raise \$4.5 billion in revenues between over ten years.

There is evidence that the typical drug benefit available to retirees through employer health plans is more generous than the standard drug benefit available under Part D. These differences may be diminished following some of the enhancements to the Part D benefit under ACA. It is difficult to say whether a further erosion of retiree health coverage in the future is in response to the elimination in the deduction of the RDS or a response to the overall increase in retiree health care costs in general. Prior to the RDS, employer sponsored retiree coverage had been trending downward.

Selected Bibliography

Fronstin, Paul. Implications of Health Reform for Retiree Health Benefits. Issue Brief No. 338. Employee Benefit Research Institute. Washington, DC: January 2010.

Jareb, Cara M. And Randall K. Abbott. "Beyond the Subsidy: Medicare Part D Employer Options." *Benefits Quarterly*, vol. 22, no. 3, Third Quarter 2006.

Moran Company. Assessing the Coverage and Budgetary Implications of Legislation Modifying the Deductibility of Retiree Drug Spending Eligible for Subsidies. March 16, 2010. Available at http://www.appwp.org/documents/hcr_rdsreport 031610.pdf.

Davis, Patricia, et. al. *Medicare Primer*, Library of Congress, Congressional Research Service Report R40425. Washington, DC: 2012.

- -, Medicare Provisions in the Patient Protection and Affordable Care Act (PPACA): Summary and Timeline, Library of Congress, Congressional Research Service Report R41196. Washington, DC: 2012.
- U.S. Congress, Government Accountability Office. Retiree Health Benefits: Options for Employment-Based Prescription Drug Benefits under the Medicare Modernization Act. GAO-05-205, Washington, DC: February 2005.
- -, Retiree Health Benefits: Majority of Sponsors Continued to Offer Prescription Drug Coverage and Chose the Retiree Drug Subsidy. GAO-07-752, Washington, DC: May 2007.
- U.S. Congress, Joint Committee on Taxation, Technical Explanation of the Revenue Provisions of the "Reconciliation Act of 2010," As Amended, in Combination With the "Patient Protection and Affordable Care Act." JCX-18-10. Washington, DC: March 21, 2010. pp. 94-95.
- U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. *The Retiree Drug Subsidy*. Available at: www.cms.hhs.gov/EmployerRetireeSubsid/01 Overview.asp.

Wojcik, Joanne. "Gaps in Data Slow Retiree Subsidies." Business Insurance, vol. 42, no. 4, January 28, 2008, pp. 1-2.

EXCLUSION OF DISASTER MITIGATION PAYMENTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	(¹)	(¹)
2012	(¹)	(¹)	(¹)
2013	(¹)	$\binom{1}{2}$	$\binom{1}{}$
2014	(¹)	(¹)	(¹)
2015	(1)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 139.

Description

Payments made for disaster mitigation (that is, payments made to mitigate damages for future hazards) under the Robert T. Stafford Disaster Relief and Emergency Insurance Act or the National Flood Insurance Act are excluded from income. Gain from the sale of property is not eligible, but sale under a disaster mitigation program is treated as an involuntary conversion, with deferral of gain pending replacement. The basis of any property is not increased as a result of improvements due to disaster mitigation payments.

Impact

Disaster mitigation grants cover a variety of mitigation expenditures such as securing items (e.g., wall- mounting appliances) to reduce potential damage from earthquakes, putting houses on stilts to reduce flood damage, tie-downs for mobile homes to protect against hurricanes and other windstorms, creating safe rooms, and securing roofs and windows from wind damage. The tax exclusion from mitigation payments increases the value of

these payments. The tax exemption is most beneficial for higher income individuals who have higher marginal tax rates. Even individuals with relatively low incomes could be subject to tax, however, since the mitigation payments can be large when used for major construction projects (such as putting houses in flood plains on stilts). These individuals might not have enough income to pay taxes on these grants and taxation might cause them not to participate in the program.

To the extent the payments increase the value of the property, they could be taxed as capital gains in the future, although most individuals do not pay capital gains tax on owner-occupied housing, and the capital gains tax rate is reduced for individuals.

Rationale

This provision was added by P.L. 109-7, Tax Treatment of Certain Disaster Mitigation Payments. The mitigation program had been in effect for about 15 years, but did not specify that these amounts would be taxable. In general, recipients had not paid tax on these grants. In June 2004, the IRS ruled that these payments, without a specific exemption in the law, were taxable income, and indicated the possibility of retroactive treatment of their ruling. The tax legislation was in response to that ruling and reflected the general view that individuals and businesses should not be discouraged from mitigation activities due to tax treatment on these payments.

Assessment

Disaster mitigation studies have suggested that the return on disaster mitigation expenditures is quite large on average (\$3 or \$4 of benefit for each dollar spent), and since the programs are grants controlled by the federal government, these expenditures should continue to be cost effective. Some of these expenditures might have been undertaken in any case, without the grant, or with the grant but without tax exemption. While there appears to be some anecdotal evidence that the expectation of being taxed would significantly reduce the participation rate, there are apparently no statistical studies on this issue.

An argument can be made that individuals should be responsible for undertaking their own measures to reduce disaster costs since those expenditures would benefit them. At the same time, the government is heavily involved in disaster relief, and by providing programs such as subsidized flood insurance and direct disaster aid, may make the returns to individual investors smaller than they are to society as a whole. Disaster mitigation expenditures for individuals and businesses can also have benefits that spill over to the community at large, and an individual would not take these benefits into account when making an investment decision.

Selected Bibliography

Harrington, Jeff, "Disaster Assistant Exempted from Taxes,," St. Petersburg Times, April 16, 2005 at http://www.sptimes.com/2005/04/16/news pf/Business/Disaster_assistance_e.shtml

—. "IRS To Tax Hurricane Grants," *St. Petersburg Times*, Oct. 27, 2004, at: http://www.sptimes.com/2004/10/27/Business/IRS_to_tax_federal_hu.shtml.

Keegan, Natalie. FEMA's Hazard Mitigation Grant Program: Overview and Issues, Library of Congress, Congressional Research Service Report R40471, Washington, DC, 2009.

McCarthy, Francis X. FEMA Disaster Housing and Hurricane Katrina: Overview and Analysis, Library of Congress, Congressional Research Service Report RL34087, Washington, DC, 2008.

McCarthy, Francis X. and Natalie Keegan, FEMA's Pre-Disaster Mitigation Program: Overview and Issues, Library of Congress, Congressional Research Service Report RL34537, Washington, DC, 2010.

- U.S. Congress, Joint Committee on Taxation. General Explanation of Tax Legislation Enacted in the 109th Congress, U.S. Government Printing Office, Washington, DC, January 17, 2007, pp. 6-7.
- U.S. Congressional Budget Office, Potential Cost Savings from the Pre-Disaster Mitigation Program, Washington, DC, September 2007.

EXCLUSION OF WORKERS' COMPENSATION BENEFITS (DISABILITY AND SURVIVORS PAYMENTS)

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	3.7	•	3.7
2012	3.9	-	3.9
2013	4.1	-	4.1
2014	4.4	-	4.4
2015	4.7	-	4.7

Authorization

Section 104(a)(1).

Description

Workers' compensation benefits to employees in cases of work-related injury, and to survivors in cases of work-related death, are not taxable. Employers finance benefits through insurance or self-insurance arrangements (with no employee contribution), and their costs are deductible as a business expense.

Benefits are provided as directed by various state and federal laws and consist of cash earnings-replacement payments, payment of injury-related medical costs, special payments for physical impairment (regardless of lost earnings), and coverage of certain injury or death-related expenses (e.g., burial costs). Employees and survivors receive compensation if the injury or death is work-related. Benefits are paid regardless of the party (employer, employee or third party) at fault, and workers' compensation is treated as the exclusive remedy for work-related injury or death.

Cash earnings replacement payments typically are set at two-thirds of lost pre-tax earning capacity, up to legislated maximum amounts. They are provided for both total and partial disability, generally last for the term of the disability, may extend beyond normal retirement age, and are paid as periodic (e.g., monthly) payments or lump-sum settlements.

Impact

Generally, any amounts received for personal injury or sickness through an employer-paid accident or health plan must be reported as income for tax purposes. This includes disability payments and disability pensions, as well as sick leave payments. In contrast, an exception is made for the monthly cash payments paid under state workers' compensation programs, which are excluded from income taxation.

Workers' compensation benefits in 2010 totaled \$57.5 billion, approximately 51 percent of which consisted of cash payments to injured employees and survivors replacing lost earnings, and 49 percent of which was paid for medical and rehabilitative services. The costs to employers for workers' compensation in 2010 was \$71.3 billion, equivalent to 1.23 percent of covered payrolls.

The Census Bureau's March Supplement to the Current Population Survey gives the following profile of those who reported receiving workers' compensation in 2011:

Workers' compensation cash benefits were less than \$5,000 for 48 percent of recipients, between \$5,000 and \$10,000 for 24 percent, between \$10,000 and \$15,000 for 9 percent, and more than \$15,000 for 19 percent.

Recipients' income (including workers' compensation) was below \$15,000 for 21 percent, between \$15,000 and \$30,000 for 28 percent, between \$30,000 and \$45,000 for 21 percent, and above \$45,000 for 30 percent.

Total family income (including workers' compensation) was below \$15,000 for 5 percent of families with workers' compensation recipients, between \$15,000 and \$30,000 for 14 percent, between \$30,000 and \$45,000 for 16 percent, and above \$45,000 for 65 percent (and above \$100,000 for 21 percent). Eight percent had family incomes below the federal poverty level.

Rationale

This exclusion was first codified in the Revenue Act of 1918. The committee reports accompanying the Act suggest that workers' compensation payments were not subject to taxation before the 1918 Act. No rationale for the exclusion is found in the legislative history. But it has been maintained that workers' compensation should not be taxed because it is in lieu of court-awarded damages for work-related injury or death that, before enactment of workers' compensation laws (beginning shortly before the 1918 Act), would have been payable under tort law for personal injury or sickness and not taxed.

Assessment

Exclusion of workers' compensation benefits from taxation increases the value of these benefits to injured employees and survivors, without direct cost to employers, through a tax subsidy. Taxation of workers' compensation would put it on a par with the earned income it replaces. It also would place the "true" cost of workers' compensation on employers if compensation benefits were increased in response to taxation. It is possible that "marginal" claims would be reduced if workers knew their benefits would be taxed like their regular earnings.

Furthermore, exclusion of workers' compensation payments from taxation is a relatively regressive subsidy because it replaces more income for (and is worth more to) those with higher earnings and other taxable income than for poorer households. While states have tried to correct for this with legislated maximum benefits and by calculating payments based on replacement of after-tax income, the maximums provide only a rough adjustment and few jurisdictions have moved to after-tax income replacement.

On the other hand, a case can be made for tax subsidies for workers' compensation because the federal and state governments have required provision of this "no-fault" benefit. Moreover, because most workers' compensation benefit levels, especially the legal maximums and the standard benefit of two-thirds of a workers' pre-injury wage, have been established knowing there would be no taxes levied, it is likely that taxation of compensation would lead to considerable pressure to increase payments.

If workers' compensation were subjected to taxation, those who could continue to work or return to work (such as those with partial or short-term

disabilities) or who have other sources of taxable income (such as a working spouse or investment earnings) are likely to be the most affected since their combined incomes would likely be above the taxable threshold level. These groups represent the majority of beneficiaries. Those who receive only workers' compensation payments (such as permanently and totally disabled beneficiaries) would be less affected, because their incomes are likely to be below the taxable threshold level.

Some administrative issues would arise in implementing a tax on workers' compensation. Although most workers' compensation awards are made as periodic cash income replacement payments, with separate payments for medical and other expenses, a noticeable proportion of the awards are in the form of lump-sum settlements. In some cases, the portion of the settlement attributable to income replacement can be distinguished from that for medical and other costs, in others it cannot. A procedure for pro-rating lump-sum settlements over time would be called for. If taxation of compensation were targeted on income replacement and not medical payments, some method of identifying lump-sum settlements (e.g., a new kind of "1099") would have to be devised. In addition, a reporting system would have to be established for insurers (who pay most benefits), state workers' compensation insurance funds, and self-insured employers, and a way of withholding taxes might be needed.

Equity questions also would arise in taxing compensation. Some of the work force is not covered by traditional workers' compensation laws. For example, interstate railroad employees and seafaring workers have a special court remedy that allows them to sue their employer for negligence damages, similar to the system for work-related injury and death benefits that workers' compensation laws replaced for most workers. Their jury-awarded compensation is not taxed. Some workers' compensation awards are made for physical impairment, without regard to lost earnings. Under current tax law, employer-provided accident and sickness benefits generally are taxable, but payments for loss of bodily functions are excluded. Thus, equity might call for continuing to exclude those workers' compensation payments that are made for loss of bodily functions as opposed to lost earnings.

Selected Bibliography

Burton, John F., Jr. "Workers' Compensation in the United States: A Primer," *Perspectives on Work*, v. 11. Summer 2007, pp. 23-25.

Hunt, H. Allan. Adequacy of Earnings Replacement in Workers' Compensation Programs. Kalamazoo MI: Upjohn Institute for Employment Research. 2004.

Larson, Lex K. Larson's Workers' Compensation Law. Newark, NJ: Matthew Bender. 2010.

Sengupta, Ishita, Virginia Reno, and John F. Burton, Jr. Workers' Compensation: Benefits, Coverage and Costs, 2010. Washington, DC: National Academy of Social Insurance. 2012.

Thomason, Terry, Timothy Schmidle and John F. Burton. Workers' Compensation, Benefits, Costs, and Safety under Alternative Insurance Arrangements. Kalamazoo MI: Upjohn Institute for Employment Research. 2001.

Welch, Edward M. Employer's Guide to Workers' Compensation, Washington, DC: The Bureau of National Affairs, Inc., 1994.

Wentz, Roy. "Appraisal of Individual Income Tax Exclusions," *Tax Revision Compendium*. U.S. Congress, House Committee on Ways and Means Committee Print. 1959, pp. 329-340.

Yorio, Edward. "The Taxation of Damages: Tax and Non-Tax Policy Considerations," *Cornell Law Review*, v. 62. April 1977, pp. 701-736.

EXCLUSION OF DAMAGES ON ACCOUNT OF PERSONAL PHYSICAL INJURIES OR PHYSICAL SICKNESS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.6	444	1.6
2012	1.6	-	1.6
2013	1.6	-	1.6
2014	1.6	-	1.6
2015	1.7	-	1.7

Authorization

Sections 104(a)(2)-104(a)(5)

Description

Damages paid, through either a court award or a settlement, to compensate for physical injury and sickness are not included in income of the recipient. This exclusion applies to both lump-sum payments and periodic payments. It does not apply to punitive damages—except in certain cases where states only permit punitive damage awards. Nor does the exclusion apply to compensation for discrimination or emotional distress.

Impact

Income received in the form of damages is not taxable to individuals. There is no tax on the interest earnings that may be included in annuities or periodic payments. To the extent that damage payments substitute for medical payments that individuals would have received from their own insurance, the tax treatment is consistent with the non-taxation of medical payments. To the extent that the payments compensate for forgone wages, however, the payments are beneficially treated compared with regular wages which would be taxed. The recipient of the settlement or award benefits

because the damage award net-of-tax is larger. But the exclusion may also benefit the defendant—and his or her insurance company—because the payment to the injured party would likely need to be larger if it were subject to tax.

Rationale

A provision allowing an exclusion for payments for damages has been part of the tax law since 1918. It is based on the reasoning that these payments are compensating for a loss. The statute was amended by the Periodic Payment Settlement Act of 1982 (P.L. 97-473) to allow full exclusion of periodic payments as well as lump-sum payments. Normally, periodic payments would be partially taxable—on the interest component. An argument for the full exclusion of periodic payments was to avoid circumstances where individuals used up their lump-sum payments and might then require public assistance.

The provision was amended in 1996 by the Small Business Job Protection Act (P.L. 104-188) to make it clear that punitive damages (except for those cases where state law requires all damages to be paid as punitive damages) and damages arising from discrimination and emotional distress were not to be excluded from income. This change was intended to settle and clarify the law, following considerable variation in the interpretation by the courts.

The Victims of Terrorism Tax Relief Act of 2001 (P.L. 107-134) expanded the existing exclusion from gross income for disability income of U.S. civilian employees attributable to a terrorist attack outside the United States. Effective for taxable years ending on or after September 11, 2001, the exclusion applies to disability income received by any individual attributable to a terrorist or military action.

Interpretation of the provisions of these sections of the Code is frequently affected by case law.

Assessment

The exclusion benefits individuals who receive cash compensation for injuries and illness. It parallels the treatment of workers' compensation which covers on-the-job injuries. It especially benefits higher-income individuals whose payments would typically be larger, reflecting larger lifetime earnings, and subject to higher tax rates.

By restricting tax benefits to compensatory rather than punitive damages, the provision encourages plaintiffs to settle out of court so that the damages can be characterized as compensatory. (That outcome may be preferred by defendants as well.) There is also an incentive to characterize damages as physical in nature—for example, to demonstrate that emotional distress led to physical symptoms—so that damages are treated as compensatory rather than punitive.

In recent years, scientific and public awareness has grown concerning the serious nature of psychiatric and emotional reactions that individuals can experience in response to harassment or situational trauma. Perhaps the best-known current example is Post-Traumatic Stress Disorder (PSTD). Some courts have opined that damage awards for emotional distress should also be excluded from taxation under section 104(a)(2).

Selected Bibliography

Bremser, Albert W. "Calculating a Taxable Damages Award: A Comparison of Two Calculation Methods." *Journal of Legal Economics*, vol. 16, no. 2 (April 2010), pp. 1 ff.

"Damages for Emotional Distress and Loss of Reputation Are Not Taxable; Code Sec. 104(a)(2) Held Unconstitutional." *CCH Federal Tax Weekly*, Aug. 31, 2006, Paragraph 3.

Hanna, Habib. "Heads I Win, Tails You Lose: The Disparate Treatment of Similarly Situated Taxpayers Under the Personal Injury Income Tax Exclusion." *Chapman Law Review*, vol. 13 (Fall 2009), pp. 161-189.

Hanson, Randall K and James K. Smith. "Taxability of Damages." *The CPA Journal*, vol. 68 (May 1998), pp. 22-28.

Internal Revenue Service, "Damages Received on Account of Personal Physical Injuries or Physical Sickness," T.D. [Treasury Decision] 9573, *Internal Revenue Bulletin*, March 19, 2012.

Oestreich, Nathan, Will Snyder, and James E. Williamson. "New Rules for Personal Injury Awards." *The National Public Accountant*, vol. 43 (May 1997), pp. 16-22.

Schreiber, Sally P. "IRS Issues Final Regs on Exclusion of Damages for Personal Physical Injury," *Journal of Accountancy*, January 20, 2012.

Sonnenberg, Stephen P., and Maria A. Audero. "Post-Traumatic Stress Disorder: As claims become common, parties and courts explore juncture of law and psychiatry." *New York Law Journal*, GC New York, Labor & Employment, vol. 243, no. 46 (March 29, 2010), pp. 1 ff.

U.S. Congress. Joint Committee on Taxation. General Explanation of Tax Legislation in the 104th Congress. U.S. Government Printing Office, Washington, DC, December 18, 1996, pp. 222-224.

Winkelman, Kenneth A. "Nonphysical Injury Awards After Murphy." *The Tax Adviser*, vol. 39, no. 13 (Dec. 2008), pp. 831 ff.

Wood, Robert W. "Tax Language in Settlement Agreements: Binding or Not?" *Tax Notes*, vol. 93 (December 31, 2001), pp. 1872-1874.

— . "Why Every Settlement Agreement Should Address Tax Consequences." *Tax Notes*, vol. 93 (July 16, 2001), pp. 405-409.

Wood, Robert W. "Tax Language in Settlement Agreements: Binding or Not?" *Tax Notes*, vol. 93 (December 31, 2001), pp. 1872-1874.

— . "Why Every Settlement Agreement Should Address Tax Consequences." *Tax Notes*, vol. 93 (July 16, 2001), pp. 405-409.

EXCLUSION OF SPECIAL BENEFITS FOR DISABLED COAL MINERS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(¹)	-	(¹)
2012	(1)	-	(¹)
2013	$\binom{1}{1}$	-	(¹)
2014	(1)	-	$\binom{1}{}$
2015	(¹)	-	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

30 U.S.C. 922(c), Section 104(a)(1), Revenue Ruling 72-400, 1972-2 C.B. 75.

Description

Cash and medical benefits to coal mine workers or their survivors for total disability or death resulting from coal workers' pneumoconiosis (black lung disease) paid under the Black Lung Benefits Act generally are not taxable. Comparable benefits paid under state workers' compensation laws also are not taxed.

Black lung eligibility claims must meet the following general conditions: the worker must be totally disabled from, or have died of, pneumoconiosis arising out of coal mine employment. However, the statute's broad definition of total disability makes it possible for a beneficiary to be working outside the coal industry, although earnings tests apply in some cases.

Black lung benefits consist of monthly cash payments and payment of black-lung-related medical costs. There are two distinct black lung programs,

known as Part B and Part C. They pay the same benefits, but differ in eligibility rules and funding sources.

The Part B program provides cash benefits to those miners who filed eligibility claims prior to June 30, 1973 (or December 31, 1973, in the case of survivors). It is financed by annual federal appropriations. The Part C program pays medical benefits for all eligible beneficiaries (both Parts B and C) and cash payments to those whose eligibility claims were filed after the Part B deadlines. Part C benefits are paid either by the "responsible" coal mine operator or, in most cases, by the Black Lung Disability Trust Fund.

To pay their obligations under the Part C program, coal mine operators may set up special "self-insurance trusts," contributions to which are tax-deductible and investment earnings on which are tax-free. Otherwise, they may fund their liability through a third-party insurance arrangement and deduct the insurance premium costs. The Black Lung Disability Trust Fund is financed by an excise tax on coal mined in and sold for use in the United States and by borrowing from the federal Treasury.

Impact

Generally, any income-replacement amounts received for personal injury or sickness through an employer-paid accident or health plan must be reported as income for tax purposes. This includes disability payments and disability pensions, as well as sick leave. An exception is made for the monthly cash payments paid under the federal black lung program, and comparable cash benefits paid under state workers' compensation programs, which are excluded from income taxation.

Black lung medical benefits are treated like other employer-paid or government-paid health insurance. Recipients are not taxed on the employer or federal contributions for their black lung health insurance, or on the value of medical benefits or reimbursements actually received.

In fiscal year 2010 cash benefits were paid to 54,264 primary beneficiaries and 8,260 dependents. Seventy-four percent of the primary beneficiaries were widows of miners. Both the Part B and the Part C rolls are declining as elderly recipients die. Part B cash payments totaled \$214 million and Part C cash payments \$208 million for fiscal year 2010. In addition, \$31 million in payments for black-lung related medical treatment were made to, or on behalf of, miners under Part C. In calendar year 2012, monthly black

lung cash payments under Part B ranged from \$625 for a miner or widow alone, to \$1,251 for a miner or widow with three or more dependents.

Rationale

Part B payments are excluded from taxation under the terms of title IV of the original Federal Coal Mine Health and Safety Act of 1969 (P.L. 91-173, now entitled the Black Lung Benefits Act). No specific rationale for this exclusion is found in the legislative history. Part C benefits have been excluded because they are considered to be in the nature of workers' compensation under a 1972 revenue ruling and fall under the workers' compensation exclusion of Section 104(a)(1) of the Internal Revenue Code. Like workers' compensation and in contrast to other disability payments, eligibility for black lung benefits is directly linked to work-related injury or disease. (See entry on "Exclusion of Workers' Compensation Benefits: Disability and Survivors Payments.")

Assessment

Excluding black lung payments from taxation increases their value to some beneficiaries, those with other taxable income. The payments themselves fall well below federal income-tax thresholds. The effect of taxing black lung benefits and the factors to be considered in deciding on their taxation differ between Part B and Part C payments.

Part B benefits could be viewed as earnings-replacement payments and, thus, appropriate for taxation, as has been argued for workers' compensation. However, it would be difficult to argue for their taxation, especially now that practically all recipients are elderly miners or widows. When Part B benefits were enacted, the legislative history emphasized that they were not workers' compensation, but rather a "limited form of emergency assistance." They also were seen as a way of compensating for the lack of health and safety protections for coal miners prior to the 1969 Act and for the fact that existing workers' compensation systems rarely compensated for black lung disability or death. Furthermore, it can be maintained that taxing Part B payments would take back with one hand what federal appropriations give with the other, although almost no beneficiaries would likely pay tax, given their age, retirement status, and low income.

A stronger argument can be made for taxing Part C benefits. If workers' compensation were to be made taxable, Part C benefits would automatically be taxed because their tax-exempt status flows from their treatment as

workers' compensation. Taxing Part C payments would give them the same treatment as the earnings they replace. It would remove a subsidy to those with other taxable income. On the other side, black lung benefits are legislatively established (as a percentage of minimum federal salaries). They do not directly reflect a worker's pre-injury earnings as does workers' compensation. They can be viewed as a special kind of disability or death "grant" that should not be taxed. Because the number of beneficiaries on both the Part B and Part C rolls is declining, the revenue forgone from not taxing these benefits should decrease over time.

Selected Bibliography

Barth, Peter S. The Tragedy of Black Lung: Federal Compensation for Occupational Disease. Kalamazoo, Mich., W.E. Upjohn Institute for Employment Research, 1987.

— , "Revisiting Black Lung: Can the Feds Deliver Workers' Compensation for Occupational Disease?" In *Workplace Injuries and Diseases: Prevention and Compensation*, ed. Karen Roberts, John F. Burton Jr., and Matthew M. Bodah, pp. 253-274. Kalamazoo, Mich., W.E. Upjohn Institute for Employment Research, 2005.

Lazzari, Salvatore. *The Black Lung Excise Tax on Coal*. Library of Congress, Congressional Research Service Report RS21935. Washington, DC, September 15, 2004.

McClure, Barbara. Federal Black Lung Disability Benefits Program. Library of Congress, Congressional Research Service Report 81-239 EPW. Washington, DC, October 27, 1981.

— , Summary and Legislative History of P.L. 97-119, Black Lung Benefits Revenue Act of 1981. Library of Congress, Congressional Research Service Report 82-59 EPW. Washington, DC, March 29, 1982.

Rappaport, Edward. *The Black Lung Benefits Program*. Library of Congress, Congressional Research Service Report RS21239. Washington, DC, June 12, 2002.

- U.S. Congress, House Committee on Education and Labor. Black Lung Benefits Reform Act and Black Lung Benefits Revenue Act of 1977. Committee Print, 96th Congress, 1st session, February 1979.
- —, Committee on Ways and Means. *Black Lung Benefits Trust*. Report to Accompany H.R. 13167. House Report No. 95-1656, 95th Congress, 2nd session, 1978.
- . 2004 Green Book: Background Material and Data on the Programs within the Jurisdiction of the Committee on Ways and Means. Committee Print WMCP No. 108-6, 108th Congress, 1st session, March 2004, pp. 13:51-52; 15:145.

- —, Senate Committee on Finance. *Tax Aspects of Black Lung Benefits Legislation*. Hearing on H.R. 10706. 94th Congress, 2nd session, September 21, 1976.
- , Committee on Finance, Subcommittee on Taxation and Debt Management Generally. *Tax Aspects of the Black Lung Benefits Reform Act of 1977*. Hearing on S. 1538. 95th Congress, 1st session, June 17, 1977.
- U.S. Department of Labor, Black Lung Disability Trust Fund, FY2013, Congressional Budget Justification, 2012.
- , Division of Coal Mine Workers' Compensation, *Black Lung Monthly Benefit Rates for 2011-2012*, 2012.
- , Health Benefits, Retirement Standards, and Workers' Compensation: Black Lung Compensation, 2012.

Walter, Douglas H. "Tax Changes Effected by the Black Lung Revenue Act of 1977." *Taxes*, v. 56, May 1978, pp. 251-254.

EXCLUSION OF CASH PUBLIC ASSISTANCE BENEFITS

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	3.4		3.4
2012	4.4	-	4.4
2013	4.9		4.9
2014	5.0	-	5.0
2015	5.1	-	5.1

Authorization

The exclusion of public assistance payments is not specifically authorized by law. However, a number of revenue rulings under Section 61 of the Internal Revenue Code, which defines "gross income," have declared specific types of means-tested benefits to be nontaxable.

Description

The federal government provides public assistance benefits tax free to individuals either in the form of cash welfare or noncash transfers (in-kind benefits such as certain goods and services received free or for an incomescaled charge). Cash payments come from programs such as Temporary Assistance for Needy Families (TANF), which replaced Aid to Families with Dependent Children during FY 1997, Supplemental Security Income (SSI) for the aged, blind, or disabled, and state and local programs of General Assistance (GA), known also by other names such as Home Relief or Safety Net.

Traditionally, the tax benefits from in-kind payments have *not* been included in the tax expenditure budget because of the difficulty of determining their value to recipients. (However, the Census Bureau publishes estimates of the value and distribution of major noncash welfare benefits.)

Impact

Exclusion of public assistance cash payments from taxation gives no benefit to the poorest recipients and has little impact on the incomes of many. This is because welfare payments are relatively low and many recipients have little if any non-transfer cash income. For example, TANF payments per family averaged \$392 monthly in FY2010, far below the federal income tax threshold. If family cash welfare payments were made taxable, most recipients still would owe no tax.

However, some welfare recipients do benefit from the exclusion of public assistance cash payments. They are persons who receive relatively greater cash aid (including aged, blind, and disabled persons enrolled in SSI in states that supplement the basic federal income guarantee, which is \$698 monthly per individual and \$1,048 per couple in 2012) and persons who have earnings for part of the year and public assistance for the rest of the year (and whose actual annual cash income would exceed the taxable threshold if public assistance were counted). Public assistance benefits are based on monthly income, and thus families whose fortunes improve during the year generally keep welfare benefits received earlier.

During FY2010, TANF ongoing cash benefits were received by a monthly average of about 1.8 million families. In August 2012, approximately 8.2 million individuals were receiving federally-administered SSI benefits. This figure includes just over 6.0 million who received only a federal payment, approximately 223,000 who received only a state supplementation payment, and just under 2.0 million individuals who received both federal and state supplementation payments.

An unpublished Census Bureau table (*Income Distribution Measures*, by Definition of Income, 2009) estimates that in 2009, \$50.9 billion was received in means-tested cash transfers from TANF, SSI, GA, and veterans' pensions. Per recipient household, cash payments averaged \$7,600. A total of 6.7 million households (5.7% of all U.S. households) were estimated to have received aid from one of the means-tested cash programs, and 51.0% of these households were in the bottom quintile of the income distribution. (Note: means-tested veterans' benefits are included in cash transfers by the Census Bureau.) The Census Bureau estimated that other means-tested cash aid totaling \$40.9 billion was received in the form of federal and state earned income tax credits. These credits went to an estimated 19.4 million households, 52.5% of whom were in the two lowest quintiles of the income

distribution. The average value of earned income tax credits in 2009 was estimated to be \$2,111 per recipient household.

In addition, the Census Bureau estimates that the 2009 value of major *noncash* means-tested benefits at \$135.3 billion. The Bureau estimated the noncash transfer for Medicaid at \$91.1 billion (\$4,967 on average per recipient household, counting only households with a Medicaid transfer), and the value of other noncash aid at \$54.2 billion. On average, recipient households received an estimated \$3,067 in other noncash aid. Of the 16.3 million estimated households receiving a noncash transfer for Medicaid, 46.0% were in the lowest two quintiles of the income distribution.

Rationale

Revenue rulings generally exclude government transfer payments from income because they have been considered to have the nature of "gifts" in aid of the general welfare. While no specific rationale has been advanced for this exclusion, the reasoning may be that Congress did not intend to tax with one hand what it gives with the other.

Assessment

Reasons have been advanced for treating means-tested cash payments as taxable income (eliminating the income tax exclusion) and for continuing the current income tax exclusion. Reasons for eliminating the income tax exclusion include: First, excluding these cash payments results in treating persons with the same level of cash income differently.

Second, removing the exclusion would not harm the poorest because their total cash income still would be below the income tax thresholds.

Third, the general view of cash welfare has changed. Cash benefits to TANF families are not viewed for tax purposes as "gifts," but as payments that impose obligations on parents to work or prepare for work through schooling or training, and many GA programs require work. Thus, it may no longer be appropriate to treat cash welfare transfers as gifts. (The SSI program imposes no work obligation, but offers a financial reward for work.)

Fourth, the exclusion of cash welfare increases the work disincentives inherent in need-tested aid by increasing the marginal tax rate above the statutory tax rate. A welfare recipient who goes to work replaces some nontaxable cash with taxable income. The loss in need-tested benefits serves

as an additional "tax", which increases the marginal tax rate above the statutory tax rate.

Fifth, using the tax system to subsidize needy persons without direct spending masks the total cost of aid and is inefficient.

Sixth, taxing welfare payments would increase the ability to integrate the tax and transfer system. In essence, part of the transfer system could be replaced through use of a negative tax system.

Several objections have been made to eliminating the income tax exclusion for means-tested cash transfers: First, cash welfare programs have the effect of providing guarantees of minimum cash income; these presumably represent target levels of disposable income. Making these benefits taxable might reduce disposable income below the targets.

Second, unless the income tax thresholds were set high enough, some persons deemed needy by their state might be harmed by the change (a recipient may be subject to federal, state, or local income taxes based on different income thresholds). TANF and SSI minimum income guarantees differ by state, but the federal tax threshold is uniform for taxpayers with the same filing status and family size. If cash welfare payments were made taxable, the actual effect would vary among the states.

Third, if cash welfare were made taxable, it is argued that noncash welfare also should be counted (raising difficult measurement issues). Further, if noncash means-tested benefits were treated as income, it is argued that other noncash income (ranging from employer-paid health insurance to tax deductions for home mortgage interest) also should be counted, raising new problems.

Fourth, the public might perceive the change (to taxing cash or noncash welfare) as violating the social safety net, and, thus, object.

Selected Bibliography

AFL-CIO. Recommendations on tax treatment of welfare-to-work payments. Memo prepared on May 8, 1998 on behalf of the AFL-CIO, and at the request of the Treasury. See *Tax Notes*, June 8, 1998, p. 1239.

Entin, Stephen J. "Fundamental Tax Reform: The Inflow Outflow Tax. A Savings-Deferred Neutral Tax System." Prepared testimony before the House Committee on Ways and Means, April 13, 2000.

Holt, Stephen D., and Jennifer L. Romich, "Marginal Tax Rates Facing Low- and Moderate-Income Workers Who Participate in Means-Tested

Transfer Programs", National Tax Journal, Vol. 60, No. 2, June 2007, pp. 253-276.

Weisbach, David A. and Jacob Nussim. "The Integration of Tax and Spending Programs," *Yale Law Journal*, March 2004, p. 955.

EARNED INCOME CREDIT (EIC)

Estimated Revenue Loss [In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	59.5	**	59.5
2012	59.7	-	59.7
2013	58.1	-	58.1
2014	58.4	-	58.4
2015	58.5	-	58.5

Authorization

Section 32.

Description

Eligible married couples and single individuals meeting earned income and adjusted gross income (AGI) limits may be eligible for an earned income credit (EIC). For purposes of the credit, earned income includes wages, salaries, tips, and net income from self employment. In addition to earned income and AGI, the value of the credit depends on whether or not the taxpayer has a qualifying child. A qualifying child for the EIC must meet three criteria for the personal exemption: (1) relationship - the child must be a son, daughter, stepson, stepdaughter, or descendent of such a relative; a brother, sister, stepbrother, stepsister, or descendent of such a relative cared for by the taxpayer as his/her own child; or a foster child; (2) residence - the child must live with the taxpayer for more than half the year; and (3) age the child must be under age 19 (or under age 24, if a full-time student) or be permanently and totally disabled. If a taxpayer does not have a qualifying child, the taxpayer must be at least 25 years of age but not more than 64 years of age, be a resident of the United States for more than half of the year, and not be claimed as a dependent on another taxpayer's return. A taxpayer

will be disqualified from receiving the credit if investment income exceeds a specified amount (\$3,100 in tax year 2010, the amount is indexed for inflation). Married couples generally must file a joint tax return.

The EIC increases with earnings up to a maximum, remains flat for a given range of income, and then declines to zero as income continues to increase. The credit is calculated as a percentage of the taxpayer's earned income up to a statutory maximum earned income amount. The credit remains at this maximum until earned income or AGI (whichever is larger) reaches a point at which it begins to phase out. Above this level, the EIC is reduced (phased out) by a percentage of the income above the phase out income amount. The maximum earned income and phase out income amounts are adjusted for inflation.

For tax year 2012, the maximum EIC is equal to 34.0 percent of the first \$9,320 of earned income for one qualifying child (i.e. the maximum basic credit is \$3,169); 40.0 percent of earned income up to \$13,090 for two qualifying children (i.e. the maximum basic credit is \$5,236); and for tax year 2012, 45% of earned income up to \$13,090 for three or more qualifying children (i.e. the maximum basic credit is \$5,891).

For individuals with children, in tax year 2012, the EIC begins to phase out at \$17,090 of earned income or AGI, whichever is larger. For married couples with children the phase out begins at an income level of \$22,300. For families above the phase out income amount, the credit is phased out at a rate of 15.98 percent of income above the phase out income level for one qualifying child, and 21.06 percent for two or more qualifying children.

For married couples and individuals without children, in tax year 2012, the EIC is 7.65 percent of the first \$6,210 for a maximum credit of \$475. The credit begins to phase out at \$7,770 of earned income (or AGI whichever is larger) at a 7.65 percent rate. For married couples with children the phase out begins at an income level of \$12,980. The maximum earned income and phase out income amounts are adjusted for inflation.

If the credit is greater than federal income tax owed, the difference is refunded. The portion of the credit that offsets (reduces) income tax is a reduction in tax collections, while the portion refunded to the taxpayer is treated as an outlay. For tax year 2009, the refundable portion of the EIC was 91.1 percent of the total EIC claimed.

While gross income for tax purposes does not generally include certain combat pay earned by members of the armed forces, members of the armed forces can elect to include this combat pay for purposes of computing the earned income credit.

Some provisions which increase phaseouts and certain rates, enacted in 2001 and 2009 and recently extended, will expire, absent legislative action on December 31, 2012.

Impact

The earned income credit increases the after-tax income of lower- and moderate-income working couples and individuals, particularly those with children. Alternative measures of income by the U.S. Census Department, which are designed to show the impact of taxes and transfers on poverty, estimate that the earned income credit (after taxes) reduced the number of people in poverty in 2009 by approximately 4.9 million.

The following table provides estimates of the distribution of the earned income credit tax expenditure by income level, and includes the refundable portion of the credit. Because the estimates use an expanded definition of income, the estimates contain a distribution for incomes above the statutory limits. For further information on the definition of income see the introduction to this document.

Distribution by Income Class of the Tax Expenditure for the Earned Income Credit, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	11.8
\$10 to \$20	34.4
\$20 to \$30	24.9
\$30 to \$40	15.8
\$40 to \$50	8.3
\$50 to \$75	4.5
\$75 to \$100	0.2
\$100 to \$200	0.0
\$200 and over	0.0

Rationale

The earned income credit was enacted by the Tax Reduction Act of 1975 as a temporary refundable credit to offset the effects of the Social Security tax and rising food and energy costs on lower income workers and to provide a work incentive for parents with little or no earned income.

The credit was temporarily extended by the Revenue Adjustment Act of 1975, the Tax Reform Act of 1976, and the Tax Reduction and Simplification Act of 1977. The Revenue Act of 1978 made the credit permanent, raised the maximum amount of the credit, and provided for advance payment of the credit. The 1978 Act also created a range of income for which the maximum credit is granted before the credit begins to phase out.

The maximum credit was raised by both the Deficit Reduction Act of 1984 and the Tax Reform Act of 1986. The 1986 Act also indexed the maximum earned income and phase out income amounts to inflation. The Omnibus Budget Reconciliation Act (OBRA) of 1990 increased the percentage used to calculate the credit, created an adjustment for family size, and created supplemental credits for young children (under age 1) and health insurance costs.

OBRA 1993 increased the credit, expanded the family-size adjustment, extended the credit to individuals without children, and repealed the supplemental credits for young children and health insurance. To increase compliance, the Taxpayer Relief Act of 1997 included a provision denying the credit to persons improperly claiming the credit in prior years.

The Economic Growth and Tax Relief Reconciliation Act (EGTRRA) of 2001 simplified calculation of the credit by excluding nontaxable employee compensation from earned income, eliminating the credit reduction due to the alternative minimum tax, and using adjusted gross income rather than modified adjusted gross income for calculation of the credit phase out. EGTRRA also expanded the phase out range for married couples filing a joint return to reduce the marriage penalty. The EGTRRA changes were scheduled to expire after 2010.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) created a new credit category for three or more eligible children with a 45% credit rate, and increased the phase out income level for married taxpayers, originally for tax years 2009 and 2010 only.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (P.L. 111-312) extended the temporary provisions enacted in 2001 and 2009 through 2012.

Assessment

The earned income credit raises the after-tax income of several million lower- and moderate-income families, especially those with children. The credit has been promoted as an alternative to raising the minimum wage, as a method for reducing the burden of Social Security tax increases, and as an incentive to work. The credit has, in dollar terms, become the largest cash welfare program.

Up to the maximum earned income amount (at which the credit reaches a maximum) the credit generally provides a work incentive: the more a person earns, the greater the amount of the credit. But within the income range over which the credit is phased out, the credit may act as a work disincentive: as the credit declines, the taxes owed increase. As income increases a credit recipient may switch from receiving a refund (because of the credit) to receiving no credit or paying taxes. The combination of higher taxes and a lower credit increases the marginal tax rate of the individual. The marginal tax rate may in many cases be higher than the rate for taxpayers with substantially higher incomes. This creates an incentive for the individual to reduce work hours (to avoid the increase in taxes and maintain the credit).

While the credit encourages single parents to enter the work force, the decline of the credit above the phase out amount can discourage the spouse of a working parent from entering the workforce. This "marriage penalty" may also discourage marriage when one or both parties receive the earned income credit. EGTRRA may have moderated this effect somewhat.

Some eligible individuals do not receive the credit because of incorrect or incomplete tax return information, or because they do not file. Conversely, payments to ineligible individuals, and overpayments to eligible recipients, have been a source of concern, resulting in IRS studies of EIC compliance and federally funded initiatives to improve administration of the credit. For tax year 2003, the IRS conducted a pre-certification study in which approximately 25,000 tax filers were asked to certify, before filing their tax returns, that the child claimed for the credit had lived with the tax filer for more than half of the tax year (making the child a qualifying child for the taxpayer to claim the EIC). The final report estimated that erroneous claims

related to the child residency requirement were \$2.9 to \$3.3 million. However, the study also estimated that there was a reduction in the credit claimed by eligible claimants of between \$1.1 and \$1.4 million due to the unintended deterrence effect of the pre-certification study.

The credit also differs from other transfer payments in that most individuals receive it as an annual lump sum rather than as a monthly benefit.

Selected Bibliography

Dahl, Gordon B., and Lance Lochner. 2012. "The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit." *American Economic Review*, v. 102(5), Aug. 2012, pp. 1927–56.

Dahl, Molly, Thomas DeLeire, and Jonathan Schwabish, "Stepping Stone or Dead End? The Effect of EITC on Earnings Growth", *National Tax Journal*, Vol. 62, No. 2, June 2009, pp. 329 - 346.

Dickert-Conlin, Stacy, Katie Fitzpatrick, and Andrew Hanson, "Utilization of Income Tax Credits by Low-Income Individuals," *National Tax Journal*, v. 58, no. 4, December 2005, pp. 743-785.

Eissa, Nada, and Hilary Hoynes, "Redistribution and Tax Expenditures: The Earned Income Tax Credit", National Bureau of Economic Research, *Working Paper Series*, Working Paper 14307, Sept. 2008.

Ellwood, David T. "The Impact of the Earned Income Tax Credit and Social Policy Reforms on Work, Marriage, and Living Arrangements," *National Tax Journal*, v. 53, no. 4, part 2, December 2000, pp. 1063 - 1106.

Gravelle, Jane G. The Earned Income Tax Credit (EITC): Effects on Work Effort, Library of Congress, Congressional Research Service Report 95-928. Washington, DC: August 30, 1995.(Available upon request from author)

Gravelle, Jane G. *The Marriage Penalty: An Overview of the Issues*, Library of Congress, Congressional Research Service Report RL30419. Washington, DC: June 21, 2001. (Available upon request from author)

Gravelle, Jane G. And Jennifer Gravelle, Horizontal Equity and Family Tax Treatment: The Orphan Child of Tax Policy, National Tax Journal, v.59, n.3, September 2006.

Holt, Stephen D., and Jennifer L. Romich, "Marginal Tax Rates Facing Low- and Moderate-Income Workers Who Participate in Means-Tested Transfer Programs", *National Tax Journal*, Vol. 60, No. 2, June 2007, pp. 253-276.

Holtzblatt, Janet, and Robert Rebelein. "Measuring the Effect of the EITC on Marriage Penalties and Bonuses," *National Tax Journal*, v. 53, no. 4, part 2, December 2000, pp. 1107 - 1129.

Horowitz, John B. "Income Mobility and the Earned Income Credit," *Economic Inquiry*, v. 40, n. 3, July 2001, pp. 334-347.

Hotz, V. Joseph, and John Karl Scholz, *The Earned Income Tax Credit,* National Bureau of Economic Research Working Paper 8078, January 2001.

Moffit, Robert. Welfare Programs and Labor Supply, National Bureau of Economic Research Working paper 9168, September 2002.

Neumark, David, and William Wascher. "Using the EITC to Help Poor Families: New Evidence and a Comparison with the Minimum Wage," *National Tax Journal*, v.54, no. 2, June 2001, pp. 281-317.

Scholz, John Karl. In "Work Benefits in the United States: The Earned Income Tax Credit, *Economic Journal*, v. 106, n. 1, January 1996, pp. 159-169.

Scott, Christine, *The Earned Income Credit (EITC): Legislative Issues*, Library of Congress, Congressional Research Service Report RS21477. Washington, DC., 2011.

Scott, Christine, *The Earned Income Credit (EITC): An Overview*, Library of Congress, Congressional Research Service Report RL31768. Washington, DC., 2011.

Smeeding, Timothy M., Katherine Ross Phillips and Michael O'Conner, "The EITC: Expectation, Knowledge, Use, and Economic and Social Mobility", *National Tax Journal*, v. 53, no. 4, part 2, December 2000, pp. 1187 - 2109.

- U.S. Census Department, Current Population Survey, Annual Social and Economic Supplement, Table 1, Income Distribution Measures, by Deifinition of Income: 2009...
- U.S. Department of Treasury, Internal Revenue Service, Compliance Estimates for Earned Income Tax Credit Claimed on 1999 Returns. February 2002.
- U.S. Department of the Treasury, Internal Revenue Service, IRS Earned Income Tax Credit (EITC) Initiative, Final Report to Congress, October 2005.

ADDITIONAL STANDARD DEDUCTION FOR THE BLIND AND THE ELDERLY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	2.7	-	2.7
2012	2.6	-	2.6
2013	3.0	-	3.0
2014	3.8	-	3.8
2015	4.0		4.0

Authorization

Section 63(f).

Description

An additional standard deduction is available for blind and elderly taxpayers. To qualify for the additional standard deduction amount, a taxpayer must be age 65 (or blind) before the close of the tax year. The added standard deduction amounts, \$1,150 for a married individual or surviving spouse or \$1,450 for an unmarried individual for tax year 2012, are added to the basic standard deduction amounts. A couple could receive additional deductions totaling \$4,600 if both members of the couple were blind and elderly. These amounts are adjusted for inflation.

Impact

The additional standard deduction amounts raise the income threshold at which taxpayers begin to pay taxes. The benefit depends on the marginal tax rate of the individual. About three-quarters of the benefits go to taxpayers with incomes under \$50,000.

Distribution by Income Class of the Tax Expenditure
for the Additional Standard Deduction Amount for the Blind
and Elderly at 2009 Income Levels

Adjusted Gross Income Class (in thousands of \$)	Percentage Distribution	
Below \$10	20.2	
\$10 to \$20	23.7	
\$20 to \$30	14.6	
\$30 to \$40	10.1	
\$40 and over	31.5	

Source: Data obtained from IRS *Statistics of Income*, http://www.irs.gov/pub/irs-soi/09in14ar.xls. Percentages may not sum to 100 percent due to rounding.

Note: This is not a distribution of the tax expenditures, but of the deductions. It is classified by adjusted gross income, not expanded adjusted gross income.

Rationale

Special tax treatment for the blind first became available under a provision of the Revenue Act of 1943 (P.L. 78-235) which provided a \$500 itemized deduction. The purpose of the deduction was to help cover the additional expenses directly associated with blindness, such as the hiring of readers and guides. The deduction evolved to a \$600 personal exemption in the Revenue Act of 1948 (P.L. 80-471) so that the blind did not forfeit use of the standard deduction and so that the tax benefit could be reflected directly in the withholding tables.

At the same time that the itemized deduction was converted to a personal exemption for the blind, relief was also provided to the elderly by allowing them an extra personal exemption. Relief was provided to the elderly because of a heavy concentration of small incomes in that population, the rise in the cost of living, and to counterbalance changes in the tax system resulting from World War II. It was argued that those who were retired could not adjust to these changes and that a general personal exemption was preferable to piecemeal exclusions for particular types of income received by the elderly.

As the personal and dependency exemption amounts increased over the years, so too did the amount of the additional exemption. The exemption

amount increased to \$625 in 1970, \$675 in 1971, \$750 in 1972, \$1,000 in 1979, \$1,040 in 1985, and \$1,080 in 1986.

A comprehensive revision of the Code was enacted in 1986 designed to lead to a fairer, more efficient, and simpler tax system. Under a provision in the Tax Reform Act of 1986 (P.L. 99-514), the personal exemptions for age and blindness were replaced by an additional standard deduction amount. This change was made because higher-income taxpayers are more likely to itemize and because a personal exemption amount can be used by all taxpayers whereas the additional standard deduction will be used only by those who forgo itemizing deductions. Thus, the rationale is to target the benefits to lower- and moderate-income elderly and blind taxpayers.

Assessment

Advocates of the blind justify special tax treatment based on higher living costs and additional expenses associated with earning income. However, other taxpayers with disabilities (deafness, paralysis, loss of limbs) are not accorded similar treatment and may be in as much need of tax relief. Just as the blind incur special expenses, so too do others with different handicapping impairments.

Advocates for the elderly justify special tax treatment based on need, arguing that the elderly face increased living costs primarily due to inflation; medical costs are frequently cited as one example. However, Social Security benefits are adjusted annually for cost inflation, and the federal government has established the Medicare Program. Opponents of the provision argue that if the provision is retained, the eligibility age should be raised. It is noted that life expectancy has been growing longer and that most 65-year-olds are healthy and could continue to work. The age for receiving full Social Security benefits has been increased for future years.

One notion of fairness is that the tax system should be based on ability to pay and that ability is based upon the income of taxpayers — not age or handicapping condition. The additional standard deduction amounts violate the economic principle of horizontal equity in that all taxpayers with equal net incomes are not treated equally. The provision also fails the effectiveness test since low-income blind and elderly individuals who already are exempt from tax without the benefit of the additional standard deduction amount receive no benefit from the additional standard deduction but are most in need of financial assistance. Nor does the provision benefit those blind or elderly taxpayers who itemize deductions (such as those with large medical

expenditures in relation to income). Additionally, the value of the additional standard deduction is of greater benefit to taxpayers with a higher rather than lower marginal income tax rate. Alternatives would be a tax credit or a direct grant.

Selected Bibliography

Chen, Yung-Ping. "Income Tax Exemptions for the Aged as a Policy Instrument," *National Tax Journal*, v. 16, no. 4, December 1963, pp. 325-336.

Ehrenhalt, Alan. "The Temptation to Hand Out Irrelevant Entitlements," *Governing*, v. 9, November 1995, pp. 7-8.

Forman, Jonathan Barry. "Reconsidering the Income Tax Treatment of the Elderly: It's Time for the Elderly to Pay Their Fair Share," *University of Pittsburgh Law Review*, v. 56, Spring 1995, pp. 589-626.

Groves, Harold M. Federal Tax Treatment of the Family. Washington, DC: The Brookings Institution, 1963, pp. 52-55.

Kahn, Jeffrey. "Personal Deductions - A Tax "Ideal" or Just Another "Deal"?" Law Review of Michigan State University - Detroit College of Law, Spring 2002, pp. 1-55.

Lightman, Gary P. "Tax Expenditure Analysis of I.R.C. §151(d), The Additional Exemption for the Blind: Lack of Legislative Vision?" *Temple Law Quarterly*, v. 50, no. 4. 1977, pp. 1086-1104.

Livsey, Herbert C. "Tax Benefits for the Elderly: A Need for Revision." *Utah Law Review*, v. 1969, no. 1, 1969, pp. 84-117.

Jackson, Pamela J. and Jennifer Teefy. Additional Standard Tax Deduction for the Blind: A Description and Assessment, U.S. Library of Congress, Congressional Research Service Report RS20555. May 7, 2008.

— . Additional Standard Tax Deduction for the Elderly: A Description and Assessment, U.S. Library of Congress, Congressional Research Service Report RS20342. May 7, 2008.

Tate, John. "Aid to the Elderly: What Role for the Income Tax?" *University of Cincinnati Law Review*, v. 41, no. 1. 1972, pp. 93-115.

- U.S. Congress, House Committee on Ways and Means. 2000 Green Book; Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means. Committee Print, 106th Congress, 2nd session. October 6, 2000, pp. 822-823.
 - . Overview of Entitlement Programs. May 15, 1992, pp. 1035-1037.
- U.S. President (Reagan). The President's Tax Proposals to the Congress for Fairness, Growth and Simplicity. Washington, DC: U.S. Government Printing Office, 1985, pp. 11-14.

Income Security

DEDUCTION FOR CASUALTY AND THEFT LOSSES

Estimated Revenue Loss [In billions of dollars]

_			-	
	Fiscal year	Individuals	Corporations	Total
-	2011	0.3	***	0.3
	2012	0.4	-	0.4
	2013	0.4	-	0.4
	2014	0.4	-	0.4
	2015	0.4	-	0.4

Authorization

Sections 165(c)(3), 165(e), 165(h) - 165(k).

Description

An individual may claim an itemized deduction for unreimbursed personal casualty or theft losses in excess of \$100 per event and in excess of 10 percent of adjusted gross income (AGI) for combined net losses during the tax year. Eligible losses are those arising from fire, storm, shipwreck, or other casualty, or from theft. The cause of the loss should be considered a sudden, unexpected, and unusual event.

The Katrina Emergency Tax Relief Act of 2005 (P.L. 109-73) eliminated limitations of deductible losses arising from the consequences of Hurricane Katrina. Such losses are deductible without regard to whether aggregate net losses exceed 10 percent of the taxpayer's adjusted gross income, and need not exceed \$100 per casualty or theft. Similarly, the limitations are removed for losses arising from Hurricanes Rita and Wilma, the 2007 Kansas storms and tornados, and the 2008 Midwestern floods, severe storms, and tornadoes.

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) expanded the applicability of the deduction for losses attributable to a

federally declared disaster occurring in 2008 and 2009. Taxpayers may claim the deduction for losses in addition to the standard deduction. Such losses are deductible without regard to whether the losses exceed 10 percent of a taxpayer's adjusted gross income. In addition, taxpayers may elect to deduct the loss on their returns for the immediately preceding tax year rather than on a current-year return.

In 2008, IRS Chief Counsel determined that investors may be able to claim a theft loss deduction for losses sustained in connection with loans to a lending company engaged in writing subprime mortgages in the year that a fraudulent scheme was discovered (IRS Office of Chief Council Memorandum Number 200811016, Release Date: March 14, 2008).

Impact

The deduction grants some financial assistance to taxpayers who suffer substantial casualties and itemize deductions. It shifts part of the loss from the property owner to the general taxpayer and thus serves as a form of government coinsurance. Use of the deduction is low for all income groups.

There is no maximum limit on the casualty loss deduction. If losses exceed the taxpayer's income for the year of the casualty, the excess can be carried back or forward to another year without reapplying the \$100 and 10 percent floors. A dollar of deductible losses is worth more to taxpayers in higher-income tax brackets because of their higher marginal tax rates. The deduction is unavailable for taxpayers who do not itemize. Typically, lower-income taxpayers tend to be less likely to itemize the deductions.

Rationale

The deduction for casualty losses was allowed under the original 1913 income tax law without distinction between business-related and non-business-related losses. No rationale was offered then.

The Revenue Act of 1964 (P.L. 88-272) placed a \$100-per-event floor on the deduction for personal casualty losses, corresponding to the \$100 deductible provision common in property insurance coverage at that time. The deduction was intended to be for extraordinary, nonrecurring losses which go beyond the average or usual losses incurred by most taxpayers in day-to-day living.

The \$100 floor was intended to reduce the number of small and often improper claims, reduce the costs of record keeping and audit, and focus the

deduction on extraordinary losses. The amount of the floor is not adjusted for inflation, however. Thus, the effectiveness of the \$100 floor eroded with time: the floor should have been at about \$700 in 2008 to compensate for the effects of inflation. Raising the floor to \$500 for 2009, as authorized by the Emergency Economic Stabilization Act of 2008, largely restored the effectiveness of this limitation. The floor, however, reverted back to \$100 for 2010 and later years. The \$500 floor was extended through to the end of 2010 for casualty losses related to federal disasters.

The Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) provided that the itemized deduction for combined nonbusiness casualty and theft losses would be allowed only for losses in excess of 10 percent of the taxpayer's AGI. While Congress wished to maintain the deduction for losses having a significant effect on an individual's ability to pay taxes, it included a percentage-of-adjusted-gross-income floor because it found that the size of a loss that significantly reduces an individual's ability to pay tax varies with income.

The casualty loss deduction is exempt from the overall limit on itemized deductions for higher-income taxpayers.

Assessment

Critics have pointed out that when uninsured losses are deductible but insurance premiums are not, the income tax discriminates against those who carry insurance and favors those who do not. It similarly discriminates against people who take preventive measures to protect their property but cannot deduct their expenses. No distinction is made between loss items considered basic to maintaining the taxpayer's household and livelihood versus highly discretionary personal consumption. The taxpayer need not replace or repair the item in order to claim a deduction for an unreimbursed loss.

Up through the early 1980s, while tax rates were as high as 70 percent and the floor on the deduction was only \$100, higher-income taxpayers could have a large fraction of their uninsured losses offset by lower income taxes, providing them reason not to purchase insurance. IRS statistics for 1980 show a larger percentage of itemized returns in higher-income groups claiming a casualty loss deduction.

The imposition of the 10-percent-of-AGI floor effective in 1983, together with other changes in the tax code during the 1980s, substantially

reduced the number of taxpayers claiming the deduction. In 1980, 2.9 million tax returns, equal to 10.2 percent of all itemized returns, claimed a deduction for casualty or theft losses. In 2009, the latest year available, only 134,237 returns claimed such a deduction out of almost 46 million returns that itemized deductions.

Use of the casualty and theft loss deduction can fluctuate widely from year to year. Deductions have risen substantially for years witnessing a major natural disaster — such as a hurricane, flood, or earthquake. In some years the increase in the total deduction claimed is due to a jump in the number of returns claiming the deduction. In others it reflects a large increase in the average dollar amount of deduction per return claiming the loss deduction.

Selected Bibliography

Fulcher, Bill. "Casualty Losses Can Be Deductible," *National Public Accountant*, v. 44, July 1999, pp. 46-47.

Huang, Rachel J. And Larry Y. Tzeng. "Optimal Tax Deductions for Net Losses Under Private Insurance with an Upper Limit," *Journal of Risk and Insurance*, v. 74, no. 4, December 2007, pp. 883-893.

Kahn, Jeffrey H. "Personal Deductions: A Tax 'Ideal' or Just Another 'Deal'?," *Law Review of Michigan State University*, v. 2002, Spring 2002, pp. 1-55.

Kaplow, Louis. "The Income Tax as Insurance: The Casualty Loss and Medical Expense Loss Deductions and the Exclusion of Medical Insurance Premiums," *California Law Review*, v. 79, December 1991, pp. 1485-1510.

— . "Income Tax Deductions for Losses as Insurance," *American Economic Review*, v. 82, no. 4. September 1992, pp. 1013-1017.

Milam, Edward E. and Donald H. Jones Jr. "Casualty and Theft Losses Can Provide Significant Tax Deductions," *Taxes, The Tax Magazine*, v. 80, no. 10, October 2002, pp. 45-50.

Ritter, Gregory J. and Joel S. Berman. "Casualty Losses (A Tax Perspective)," *Florida Bar Journal*, v. 67, April 1993, pp. 43-38.

Thompson, Steven C. and Nell Adkins. "Casualty Gains — An Oxymoron, or Just a Trap for Unwary Taxpayers?," *Taxes*, v. 73, June 1995, pp. 318-24.

- U.S. Congress, Senate Finance Committee. Detailed Summary of Energy, Disaster Relief, AMT, and Other Tax Extender Provisions in Emergency Economic Stabilization Act of 2008, October 1, 2008, reported by BNA, Inc, TaxCore Congressional Documents, October 2, 2008.
- U.S. Department of Treasury, Internal Revenue Service. Casualties, Disasters, and Thefts. Publication 547, for use in preparing 2007 returns.

Income Security

NET EXCLUSION OF PENSION CONTRIBUTIONS AND EARNINGS PLANS FOR EMPLOYEES AND SELF-EMPLOYED INDIVIDUALS (KEOGHS)

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	105.3	-	105.3
2012	122.6	-	122.6
2013	147.0	-	147.0
2014	162.7	-	162.7
2015	180.6	-	180.6

Authorization

Sections 401-407, 410-418E, and 457.

Description

Employer contributions to qualified pension, profit-sharing, stockbonus, and annuity plans on behalf of an employee are not taxable to the employee. The employer is allowed a current deduction for these contributions (within limits). Earnings on these contributions are not taxed until distributed.

The employee or the employee's beneficiary is generally taxed on benefits when benefits are distributed. (In some cases, employees make direct contributions to plans that are taxed to them as wages; these previously taxed contributions are not subject to tax when paid as benefits).

A pension, profit-sharing, or stock-bonus plan is a qualified plan only if it is established by an employer for the exclusive benefit of employees or their beneficiaries. In addition, a plan must meet certain requirements, including standards relating to nondiscrimination, vesting, requirements for participation, and survivor benefits. Nondiscrimination rules are designed to

prevent the plans from primarily benefitting highly paid, key employees. Vesting refers to the period of employment necessary to obtain non-forfeitable pension rights.

Tax-favored pension plans, referred to as Keogh plans, are also allowed for the self-employed; they account for only a relatively small portion of the cost (\$14.2, \$15.5, \$15.8, \$16.3, and \$16.9 billion in FY2011-FY2015).

There are two major types of pension plans: defined-benefit plans, where employees are ensured of a certain benefit on retirement; and defined-contribution plans, where employees have a right to accumulated contributions (and earnings on those contributions).

The tax expenditure is measured as the tax revenue that the government does not currently collect on contributions and earnings amounts, offset by the taxes paid on pensions by those who are currently receiving retirement benefits.

Impact

Pension plan treatment allows an up-front tax benefit by not including contributions in wage income. In addition, earnings on invested contributions are not taxed, although tax is paid on both original contributions and earnings when amounts are paid as benefits. The net effect of these provisions, assuming a constant tax rate, is effectively tax exemption on the return. That is, the rate of return on the after-tax contributions is equal to the pre-tax rate of return. If tax rates are lower during retirement years than during the years of contribution and accumulation, there is a "negative" tax. In present value terms, the government loses more than it receives in taxes.

The employees who benefit from this provision consist of taxpayers whose employment is covered by a plan and whose service has been sufficiently continuous for them to qualify for benefits in a company or union-administered plan. The benefit derived from the provision by a particular employee depends upon the level of tax that would have been paid by the employee if the provision were not in effect.

Analysis of the March 2008 Current Population Survey shows that pension income constituted less than 7 percent of total family income for elderly individuals in the poorest two income quintiles (the lowest 40 percent of elderly individuals). Pension income, however, accounted for about 20 percent of total family income for those in the highest two income quintiles.

There are several reasons that the tax benefit accrues disproportionately to higher-income individuals. First, employees with lower salaries are less likely to be covered by an employer plan. In 2007, only 15 percent of working prime-age (25 to 54 years of age) individuals earning less than \$20,000 were covered by a pension plan. In contrast, almost three-quarters of working prime-age individuals earnings over \$65,000 were covered by a pension plan.

Although some of these differences reflect the correlation between low income and age, the differences in coverage by income level hold across age groups. For example, in the 45 to 49 age group, only 16 percent with wage income less than \$20,000 were covered, 46 percent with income \$20,000 to \$35,000 were covered, 62 percent with income \$35,000 to \$50,000 were covered, 70 percent with income \$50,000 to \$65,000 were covered, and 75 percent with income over \$65,000 were covered.

Second, in addition to fewer lower-income individuals being covered by the plans, the dollar contributions are much larger for higher-income individuals. This disparity occurs not only because of their higher salaries, but also because of the integration of many plans with Social Security. Under a plan that is integrated with Social Security, employer-derived Social Security benefits or contributions are taken into account as if they were provided under the plan in testing whether the plan discriminates in favor of employees who are officers, shareholders, or highly compensated. These integration rules allow a smaller fraction of income to be allocated to pension benefits for lower-wage employees.

Finally, higher-income individuals derive a larger benefit from tax benefits because their tax rates are higher and thus the value of tax reductions is greater.

In addition to differences across incomes, workers are more likely to be covered by pension plans if they work in certain industries, if they are employed by large firms, or if they are unionized.

Rationale

The first income tax law did not address the tax treatment of pensions, but Treasury Decision 2090 in 1914 ruled that pensions paid to employees were deductible to employers. Subsequent regulations also allowed pension contributions to be deductible to employers, with income assigned to various entities (employers, pension trusts, and employees). Earnings were also

taxable. The earnings of stock-bonus or profit-sharing plans were exempted in 1921, and the treatment was extended to pension trusts in 1926.

The rationale for these early decisions as for many other early provisions was not clear, since there was no recorded debate. It seems likely that the exemptions may have been adopted in part to deal with technical problems of assigning income. In 1928, deductions for contributions to reserves were allowed.

In 1938, because of concerns about tax abuse (firms making contributions in profitable years and withdrawing them in loss years), restrictions were placed on withdrawals unless all liabilities were paid.

In a major development, in 1942 the first anti-discrimination rules were enacted, although these rules allowed integration with Social Security. These regulations were designed to prevent the benefits of tax deferral from being concentrated among highly compensated employees. Rules to prevent overfunding (which could allow pension trusts to be used to shelter income) were adopted as well.

Non-tax legislation in the Taft-Hartley Act of 1947 affected collectively bargained multi-employer plans, and the Welfare and Pensions Plans Disclosure Act of 1958 added various reporting, disclosure, and other requirements.

In 1962, the Self-Employed Individuals Retirement Act allowed selfemployed individuals to establish tax-qualified pension plans, known as Keogh (or H.R. 10) plans, which also benefitted from deferral.

Another milestone in the pension area was the Employee Retirement Income Security Act of 1974, which provided minimum standards for participation, vesting, funding, and plan asset management, along with creating the Pension Benefit Guaranty Corporation (PBGC) to provide insurance of benefits. Limits were established on the amount of benefits paid or contributions made to the plan, with both dollar limits and percentage-of-pay limits.

Various changes have occurred since this last major revision. In 1978, simplified employee pensions (SEPS) and tax-deferred savings (401(k)) plans were allowed. The limits on SEPS and 401(k) plans were raised in 1981. In 1982, limits on pensions were cut back and made the same for all employer plans, and special rules were established for "top-heavy" plans. The 1982 legislation also eliminated disparities in treatment between

corporate and noncorporate (i.e., Keogh) plans, and introduced further restrictions on vesting and coverage.

The Deficit Reduction Act of 1984 maintained lower limits on contributions, and the Retirement Equity Act of that same year revised rules regarding spousal benefits, participation age, and treatment of breaks in service.

In 1986, various changes were enacted, including substantial reductions in the maximum contributions under defined-contribution plans, and other changes (anti-discrimination rules, vesting, integration rules). In 1987, rules to limit under-funding and over-funding of pensions were adopted. The Small Business Job Protection Act of 1996 made a number of changes to increase access to plans for small firms, including safe-harbor nondiscrimination rules. In 1997, taxes on excess distributions and accumulations were eliminated.

The 2001 tax cut raised the contribution and benefit limits for pension plans, allowed additional contributions for those over age 50, increased the full-funding limit for defined benefit plans, allowed additional ability to roll over limits on 401(k) and similar plans, and provided other regulatory changes. These provisions were to sunset at the end of 2010, but were made permanent by the Pension Protection Act of 2006.

The Economic Growth and Tax Relief Reconciliation Act of 2001 created the Roth 401(k), which went into effect on January 1, 2006. Contributions to Roth 401(k)s are taxed, but qualified distributions are not taxed.

Assessment

Taxing defined-benefit plans can be very difficult since it is not always easy to allocate pension accruals to specific employees. It would be particularly difficult to allocate accruals to individuals who are not vested. This complexity would not, however, preclude taxation of trust earnings at some specified rate.

The major economic justification for the favorable tax treatment of pension plans is that they arguably increase savings and increase retirement income security. The effects of these plans on savings and overall retirement income are, however, subject to some uncertainty.

One incentive to save relies on an individual's realizing tax benefits on savings about which he can make a decision. Since individuals cannot directly control their contributions to plans in many cases (defined-benefit plans), or are subject to a ceiling on contributions, the tax incentives to save may not be very powerful, because tax benefits relate to savings that would have taken place in any case. At the same time, pension plans may force saving and retirement income on employees who otherwise would have total savings less than their pension-plan savings. The empirical evidence is mixed, and it is not clear to what extent forced savings is desirable.

There has been some criticism of tax benefits to pension plans, because they are only available to individuals covered by employer plans. Thus they violate the principle of horizontal equity (equal treatment of equals). They have also been criticized for disproportionately benefitting high-income individuals.

The Enron collapse focused attention on another important issue in pension plans: the displacement of defined benefit plans by defined contribution plans (particularly those with voluntary participation, such as the 401(k) plan, which are not insured) and the instances in which defined contribution plans were heavily invested in employer securities, increasing the risk to the employee who could lose retirement savings (as well as a job) when his or her firm failed. Research has suggested that individuals do not diversify their portfolios in the way that investment advisors would suggest, that they actually increase the share of their own contributions invested in employer stock when the employer stock is also used to make matching contributions, and that they are strongly affected by default choices in the level and allocation of investment.

Selected Bibliography

Cagan, Philip. *The Effect of Pension Plans on Aggregate Savings*. New York: Columbia University Press, 1965.

Choi, James J., David Laibson, and Brigitte C. Madrian. "Plan Design and 401(k) Savings Outcomes," *National Tax Journal*, v. 57, June 2004, pp. 275-298.

Engen, Eric M., William G. Gale, and John Karl Scholz. "The Effects of Tax-Based Saving Incentives on Saving and Wealth," *National Bureau of Economic Research Working Paper* 5759, September 1996.

— . "Personal Retirement Saving Programs and Asset Accumulation: Reconciling the Evidence," *National Bureau of Economic Research Working Paper* 5599, May 1996.

— . "The Illusory Effects of Savings Incentives on Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 113-138.

Even, William E., and David Macpherson. "Company Stock in Pension Plans," *National Tax Journal*, v. 57, June 2004, pp. 299-314.

Fox, John O. "The Troubling Shortfalls and Excesses of Tax Subsidized Pension Plans," ch. 11, *If Americans Really Understood the Income Tax*, Boulder, CO, Westview Press, 2001.

Friedberg, Leora, and Michael T. Owyang, "Not Your Father's Pension Plan: The Rise of 401(k) and Other Defined Contribution Plans," *Federal Reserve Bank of St. Louis Review*, v. 84, January-February, 2002, pp. 23-34.

Gale, William G., J. Mark Iwry, and Gordon McDonald. "An Analysis of the Roth 401(k)," *Tax Notes*, January 9, 2006, pp. 163-167.

Gale, William G. "The Effects of Pensions on Household Wealth: A Re-Evaluation of Theory and Evidence," *Journal of Political Economy*, v. 106, August 1998, pp. 706-723.

Gravelle, Jane G. Economic Effects of Taxing Capital Income, ch. 8. Cambridge, MA: MIT Press, 1994.

- . Employer Stock in Pension Plans: Economic and Tax Issues, U.S. Library of Congress, Congressional Research Service Report RL31551, September 4, 2002.
- . "The Enron Debate: Lessons for Tax Policy," Urban-Brookings Tax Policy Center Discussion Paper 6, Washington, DC: The Urban Institute, February 2003.

Howard, Christopher. The Hidden Welfare State: Tax Expenditure and Social Policy in the United States. Princeton, NJ: Princeton Univ. Press, 1997.

Hubbard, R. Glenn. "Do IRAs and Keoghs Increase Savings?" *National Tax Journal*, v. 37, March 1984, pp. 43-54.

—, and Jonathan S. Skinner. "Assessing the Effectiveness of Savings Incentives," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 73-90.

Hungerford, Thomas L. Saving Incentives: What May Work, What May Not. U.S. Library of Congress, Congressional Research Service Report RL33482, Washington, DC: June 10, 2011.

— . "Tax Expenditures: Good, Bad, or Ugly?" *Tax Notes*, v. 113, no. 4, October 23, 2006, pp. 325-334.

Ippolito, Richard. "How Recent Tax Legislation Has Affected Pension Plans," *National Tax Journal*, v. 44, September 1991, pp. 405-417.

Johnson, Richard W., and Cori E. Uccello, "Cash Balance Plans: What Do They Mean for Retirement Security?" *National Tax Journal*, v. 57, June 2004, pp. 315-328.

Joulfaian, David, and David Richardson. "Who Takes Advantage of Tax-Deferred Saving Programs? Evidence from Federal Income Tax Data," *National Tax Journal*, v. 54, September 2001, pp. 669-688.

Katona, George. *Private Pensions and Individual Savings*, Survey Research Center, Institute for Social Research, University of Michigan, 1965.

Lindeman, David, and Larry Ozanne. *Tax Policy for Pensions and Other Retirement Savings*. U.S. Congress, Congressional Budget Office. Washington, DC: U.S. Government Printing Office, April 1987.

Madrian, Brigette C., and Dennis F. Shea. "The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior," *Quarterly Journal of Economics*, v. 116, November 2001, pp. 1149-1187.

Mitchell, Olivia S., Stephen P. Utkus, and Tongxuan Yang. "Turning Workers into Savers? Incentives, Liquidity, and Choice in 401(k) Plan Design," *National Tax Journal*, v. 60, no. 3, September 2007, pp. 469-489.

Munnell, Alicia. "Are Pensions Worth the Cost?" *National Tax Journal*, v. 44, September 1991, pp. 406-417.

- . "Current Taxation of Qualified Plans: Has the Time Come?" New England Economic Review. March-April 1992, pp. 12-25.
- . "The Impact of Public and Private Pension Schemes on Saving and Capital Formation," *Conjugating Public and Private: The Case of Pensions*. Geneva: International Social Security Association, Studies and Research No. 24, 1987.
- . "Private Pensions and Saving: New Evidence," *Journal of Political Economy*, v. 84, October 1976, pp. 1013-1032.

Munnell, Alicia H. and Annika Sunden. Coming Up Short: The Challenge of 401(k) Plans, Washington, DC: Brookings Institution Press, 2004.

Pence, Karen. "Nature or Nurture: Why do 401(k) Participants Save Differently than Other Workers?" *National Tax Journal*, v. 55, September 2002, pp. 596-616.

— . "Reducing Bias in Estimates of the Effect of the 401(K) Program on Savings," in *Proceedings of the 94th Annual Conference 2001*, Washington, DC: National Tax Association, 2002, pp. 130-135.

Poterba, James M., Steven F. Venti and David Wise. "Do 401(K) Contributions Crowd Out Other Personal Saving?" *Journal of Public Economics*, v. 58, 1995, pp. 1-32.

- . "How Retirement Saving Programs Increase Savings," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 91-112.
- . "Targeted Retirement Saving and the Net Worth of Elderly Americans," *American Economic Review*, v. 84, May 1995, pp 180-185.

Purcell, Patrick. Pension Reform: The Economic Growth and Tax Relief Reconciliation Act of 2001. U.S. Library of Congress, Congressional Research Service Report RS20629, Washington, DC.: Jan. 28, 2003.

— . Pension Sponsorship and Participation: Summary of Recent Trends. U.S. Library of Congress, Congressional Research Service Report RL30122, Washington, DC.: September 11, 2009.

Topoleski, John. 401(k) Plans and Retirement Savings: Issues for Congress, U.S. Library of Congress, Congressional Research Service Report R40707, January 7, 2011.

Turner, John A. "Pension Tax Treatment," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005.

- U.S. Congress, House Committee on Ways and Means. *Background Material: 2004 Green Book*, Committee Print, 108th Congress, 2nd session. March 2004, pp. 13-3 to 13-15.
- U.S. Department of Labor, Pension and Welfare Benefits Administration, *Trends in Pensions*. Washington, DC: U.S. Government Printing Office, 1989.
- U.S. Department of the Treasury. Report to Congress on the Effect of the Full Funding Limit on Pension Benefit Security, May 1991.
- U.S. General Accounting Office. *Answers to Key Questions About Private Pensions*. Washington, DC: U.S. Government Printing Office, GAO-02-7455P, September 18, 2002.
- . Effects of Changing the Tax Treatment of Fringe Benefits. Washington, DC: U.S. Government Printing Office, April 1992.
- . Private Pensions: Improving Worker Coverage and Benefits. Washington, DC: U.S. Government Printing Office, GAO-2-225. April 16, 2002.
- . Private Pensions: Key Issues to Consider Following the Enron Collapse. Testimony of David Walker, Washington, DC: U.S. Government Printing Office, GAO-02-480T, February 27, 2002.

Utgoff, Kathleen. "Public Policy and Pension Regulation," *National Tax Journal*, v. 44, September 1991, pp. 383-391.

Income Security

NET EXCLUSION OF PENSION CONTRIBUTIONS AND EARNINGS: TRADITIONAL AND ROTH INDIVIDUAL RETIREMENT ACCOUNTS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	10.5	-	10.5
2012	12.2	-	12.2
2013	18.2	-	18.2
2014	21.6	-	21.6
2015	23.9	-	23.9

Authorization

Sections 219, 408, and 408A.

Description

There are two types of individual retirement accounts (IRAs): the traditional IRA and the Roth IRA. The traditional IRA allows for the tax deferred accumulation of investment earnings, and some individuals are eligible to make tax-deductible contributions to their traditional IRAs while others are not. Some or all distributions from traditional IRAs are taxed at retirement. In contrast, contributions to Roth IRAs are not tax deductible, but distributions from Roth IRAs are not taxed on withdrawal in retirement.

The deduction for contributions is phased out for active participants in a pension plan. Individuals not covered by a pension plan and whose spouse is also not covered can deduct the full amount of their IRA contribution. The deduction for IRA contributions is phased out for pension plan participants. For 2012, the phase-out range for single taxpayers is \$58,000 to \$68,000 in modified adjusted gross income and \$92,000 to \$112,000 for joint returns. Individuals may choose a backloaded IRA (a Roth IRA) where contributions are not deductible but no tax applies to withdrawals. These benefits are

phased out at \$173,000 to \$183,000 for a joint return and \$110,000 to \$125,000 for singles.

The annual limit for IRA contributions is the lesser of \$5,000 or 100 percent of compensation. The ceiling is indexed for inflation in \$500 increments. Individuals age 50 and older may make an additional catch-up contribution of \$1,000.

A married taxpayer who is eligible to set up an IRA is permitted to make deductible contributions up to \$5,000 to an IRA for the benefit of the spouse.

Distributions made before age $59\frac{1}{2}$ (other than those attributable to disability or death) are subject to an additional 10-percent income tax unless they are rolled over to another IRA or to an employer plan. Exceptions include withdrawals of up to \$10,000 used to purchase a first home, for education expenses, or for unreimbursed medical expenses.

Distributions from IRAs must begin before age 70½. Contributions may, however, still be made to a Roth IRA after that age.

The tax expenditure estimates reflect the net of tax losses due to failure to tax contributions and current earnings in excess of taxes paid on withdrawals.

Under legislation adopted at the end of 2006 (the Tax Relief and Health Care Act of 2006, P.L. 109-432), amounts may be withdrawn, on a one-time basis, from IRAs and contributed to Health Savings Accounts (HSAs) without tax or penalty.

Beginning in 2010, the income limitations on converting a traditional IRA to a Roth IRA are eliminated.

Impact

Deductible IRAs allow an up-front tax benefit by deducting contributions along with no taxing of earnings, although tax is paid when earnings are withdrawn. The net overall effect of these provisions, assuming a constant tax rate, is the equivalent of tax exemption on the return (as in the case of Roth IRAs). That is, the individual earns the pre-tax rate of return on his or her after-tax contribution. If tax rates are lower during retirement years than they were during the years of contribution and accumulation, there is a "negative" tax on the return. Non-deductible IRAs benefit from a

postponement of tax rather than an effective forgiveness of taxes, as long as they incur some tax on withdrawal.

IRAs tend to be less focused on higher-income levels than some other types of capital tax subsidies, in part because they are capped at a dollar amount. Their benefits do tend, nevertheless, to accrue more heavily to the upper half of the income distribution. This effect occurs in part because of the low participation rates at lower income levels. Further, the lower marginal tax rates at lower income levels make the tax benefits less valuable.

The current tax expenditure reflects the net effect from three types of revenue losses and gains. The first is the forgone taxes from the deduction of IRA contributions by certain taxpayers. The distribution table below shows that almost half of this tax benefit goes to low- and middle-income taxpayers with adjusted gross income below \$75,000. (The median tax return in 2004 had adjusted gross income of about \$25,000.)

The second is the forgone taxes from not taxing IRA earnings. The distribution table shows that about a quarter of these tax benefits accrue to low- and middle-income taxpayers. The primary reason is that upper-income taxpayers have larger IRA balances and the higher marginal tax rate makes this tax benefit more valuable to upper-income taxpayers.

The final type is the tax revenue gain from the taxation of IRA distributions. Distributions from traditional IRAs are taxed. If the contributions were deductible, then the entire distribution is taxed. Only the investment earnings are taxed for distributions from nondeductible traditional IRAs. Qualified distributions from Roth IRAs are not taxed. The distribution table shows that low- and middle-income taxpayers account for about one third of the tax revenue gain.

The total tax benefit of IRAs is the combination of these three effects. The final column of the distribution table reports the net tax benefit by income class. The table shows that less than 25 percent of the net tax benefit accrues to low- and middle-income taxpayers with income below \$75,000.

Estimated Percentage Distribution of IRA Benefits

Income Class	Deductions	Earnings	Distributions	Net Effect
less than \$10,000	1.1	1.2	1.1	1.4
\$10,000-30,000	8.5	5.8	7.2	4.5
\$30,000-50,000	20.2	8.6	10.2	7.9
\$50,000-75,000	17.8	11.4	14.0	9.1
\$75,000-100,000	17.0	15.9	18.6	13.0
\$100,000-200,000	23.4	25.6	27.5	23.4
Over \$200,000	12.1	31.6	21.4	40.8

Note: Derived from 2004 IRS, Statistics of Income data.

Rationale

The provision for IRAs was enacted in 1974, but it was limited to individuals not covered by pension plans. The purpose of IRAs was to reduce discrimination against these individuals.

In 1976, the benefits of IRAs were extended to a limited degree to the nonworking spouse of an eligible employee. It was thought to be unfair that the nonworking spouse of an employee eligible for an IRA did not have access to a tax-favored retirement program.

In 1981, the deduction limits for all IRAs were increased to the lesser of \$2,000 or 100 percent of compensation (\$2,250 for spousal IRAs). The 1981 legislation extended the IRA program to employees who are active participants in tax-favored employer plans, and permitted an IRA deduction for qualified voluntary employee contributions to an employer plan.

The current rules limiting IRA deductions for higher-income individuals not covered by pension plans were added as part of the Tax Reform Act of 1986. Part of the reason for this restriction arose from the requirements for revenue and distributional neutrality. The broadening of the base at higher income levels through restrictions on IRA deductions offset the tax rate reductions. The Taxpayer Relief Act of 1997 increased phase-outs and added Roth IRAs to encourage savings.

The 2001 tax cut act raised the IRA contribution limit to \$3,000, with an eventual increase to \$5,000 and inflation indexing. These provisions were to sunset at the end of 2010, but were made permanent by the Pension

Protection Act of 2006. The 2001 tax act also added the tax credit and catch up contributions. The elimination of the income limit on Roth IRA conversions starting in 2010 was added by the Tax Increase Prevention and Reconciliation Act of 2005.

Assessment

The tendency of capital income tax relief to benefit higher-income individuals has been reduced in the case of IRAs by the dollar ceiling on the contribution, and by the phase-out of the deductible IRAs as income rises for those not covered by a pension plan. Nonetheless, 40 percent of the tax benefits accrue to taxpayers with income above \$200,000. Providing IRA benefits to those not covered by pensions may also be justified as a way of providing more equity between those covered and not covered by an employer plan.

Another economic justification for IRAs is that they arguably increase savings and increase retirement security. The effects of these plans on savings and overall retirement income are, however, subject to some uncertainty, and this issue has been the subject of a considerable literature.

Selected Bibliography

Attanasio, Orazio and Thomas De Leire. "The Effect of Individual Retirement Accounts on Household Consumption and Savings," *Economic Journal*, v. 112, July 2002, pp. 504-538.

Burman, Leonard, Joseph J. Cordes, and Larry Ozanne. "IRAs and National Savings," *National Tax Journal*, v. 43, September 1990, pp. 123-128.

Burman, Leonard, William G. Gale, and David Weiner, "The Taxation of Retirement Saving: Choosing Between Front-Loaded and Back-Loaded Options." *National Tax Journal*, v. 54, September 2001, pp. 689-702.

Burnham, Paul and Larry Ozanne. "Individual Retirement Accounts," in *The Encyclopedia of Taxation and Tax Policy*, Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle, eds. Washington, DC: Urban Institute Press, 2005.

Engen, Eric M., William G. Gale, and John Karl Scholz. "The Illusory Effects of Saving Incentives on Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 113-138.

— . "Personal Retirement Saving Programs and Asset Accumulation: Reconciling the Evidence," *National Bureau of Economic Research Working Paper* 5599. May 1996.

Feenberg, Daniel, and Jonathan Skinner. "Sources of IRA Savings," *Tax Policy and the Economy 1989*, Lawrence H. Summers, ed. Cambridge, MA.: M.I.T. Press, 1989, pp. 25-46.

Gale, William G., and John Karl Scholz. "IRAs and Household Savings," *American Economic Review*, v. 84, no. 5, December 1994, pp. 1233-1260.

Gravelle, Jane G. "Do Individual Retirement Accounts Increase Savings?" *Journal of Economic Perspectives*, v. 5, Spring 1991, pp. 133-148.

— . Economic Effects of Taxing Capital Income, ch. 8. Cambridge, MA: MIT Press, 1994.

Gravelle, Jane G., and Maxim Shvedov, *Proposed Savings Accounts: Economic and Budgetary Effects*, U.S. Library of Congress, Congressional Research Service Report RL32228, March 7, 2007.

Hubbard, R. Glenn, and Jonathan S. Skinner. "Assessing the Effectiveness of Savings Incentives," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 73-90.

Hungerford, Thomas L., and Jane G. Gravelle. *Individual Retirement Accounts (IRAs): Issues and Proposed Expansion*, U.S. Library of Congress, Congressional Research Service Report RL30255, January 6, 2012.

Imrohoroglu, Selahattn, and Douglas Joins. "The Effect of Tax Favored Retirement Accounts on Capital Accumulation," *American Economic Review*, v. 88, September 1988, pp. 749-768.

Joulfaian, David, and David Richardson. "Who Takes Advantage of Tax-Deferred Saving Programs? Evidence from Federal Income Tax Data," *National Tax Journal*, v. 54, September 2001, pp. 669-688.

Kotlikoff, Laurence J. "The Crisis in U.S. Saving and Proposals to Address the Crisis," *National Tax Journal*, v. 43, September 1990, pp. 233-246.

Poterba, James, Steven Venti, and David A. Wise. "How Retirement Savings Programs Increase Saving," *Journal of Economic Perspectives*, v. 10, Fall 1996, pp. 91-112.

Purcell, Patrick. "Pension Reform: The Economic Growth and Tax Relief Reconciliation Act of 2001," U.S. Library of Congress, Congressional Research Service Report RS20629, Washington, DC.: Updated January 28, 2003.

Stevens, Kevin T., and Raymond Shaffer. "Expanding the Deduction for IRAs and Progressivity," *Tax Notes*, August 24, 1992, pp. 1081-1085.

Venti, Steven F., and David A. Wise. "Have IRAs Increased U.S. Savings?" *Quarterly Journal of Economics*, v. 105, August 1990, pp. 661-698.

U.S. Congress, Congressional Budget Office. *Tax Policy for Pensions and Other Retirement Savings*, by David Lindeman and Larry Ozanne. Washington, DC: U.S. Government Printing Office, April 1987.

- , House Committee on Ways and Means. *Background Materials:* 2000 Green Book, Committee Print, 106th Congress, 2nd session. October 6, 2000, pp. 789-792.
- —, Joint Committee on Taxation. Present Law, Proposals, and Issues Relating to Individual Retirement Arrangements and Other Savings Incentives, Joint Committee Print, 101st Congress, 2nd session. March 26, 1990.
- . General Explanation of the Tax Legislation Enacted in 1997, Joint Committee Print, 105th Congress, 1st session, December 17, 1997.
- . Description and Analysis of S. 612 (Savings and Investment Incentive Act of 1991), Joint Committee Print.
- . Senate Committee on Finance. *Hearing on Bentson-Roth IRA*, 102nd Congress, 1st session. May 16, 1991.

Income Security

TAX CREDIT FOR CERTAIN INDIVIDUALS FOR ELECTIVE DEFERRALS AND IRA CONTRIBUTIONS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.0	-	1.0
2012	1.0	-	1.0
2013	1.0	-	1.0
2014	1.0	-	1.0
2015	1.0	-	1.0

Authorization

Section 25B.

Description

Taxpayers who are age 18 or over and not full-time students or dependents can claim a tax credit for elective contributions to qualified retirement plans or IRAs. The maximum contribution amount eligible for the credit is \$2,000. Credit rates depend on filing status and adjusted gross income. For joint returns the credit is 50 percent for adjusted gross income under \$34,000, 20 percent for incomes between \$34,000 and \$36,500, and 10 percent for incomes above \$36,500 and less than \$56,500. Income categories are half as large for singles (\$17,000, \$18,250, and \$28,250) and between those for singles and joint returns for heads of household (\$25,500, \$27,350, and \$42,375). The income thresholds are indexed to inflation. The credit may be taken in addition to general deductions or exclusions. The credit is not refundable.

Impact

Because of the phaseout, the credit's benefits are targeted to lower-income individuals. However, the ability to use the credit is limited because

so many lower-income individuals have no tax liability. According to the Treasury Department, about 57 million taxpayers would be eligible for the credit, but about 26 million would receive no credit because they have no tax liability. Of those actually able to benefit from the credit, the amount of benefit will probably be relatively small. The average credit for the 2008 tax year was less than \$165. One study finds that the credit has a modest effect on take-up and on amounts contributed to retirement savings plans by lowand moderate-income families.

Historically, most lower-income individuals do not tend to save or participate in voluntary plans such as individual retirement accounts, perhaps because of pressing current needs. Thus, the number of families and individuals claiming the credit may be relatively small. In tax year 2008, about 6 percent of taxpayers with adjusted gross income of \$50,000 or less took the retirement savings contribution credit.

Rationale

This provision was enacted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 and was set to expire after 2006. The Pension Protection Act of 2006 made this credit permanent. Its purpose was to provide savings incentives for lower-income individuals who historically have had inadequate retirement savings or none at all. The credit is comparable to a matching contribution received by many 401(k) participants from their employers.

Assessment

The expectation is that the credit has limited impact on increasing savings for its target group because so many lower income-individuals do not have enough tax liability to benefit from the credit. Among those who are eligible, the higher incomes necessary for them to have tax liability mean that the credit rate is lower. The credit could be redesigned to cover more lower-income individuals by stacking it first, before the refundable child credit, or making the credit refundable. Gale, Iwry, and Orszag (2005) estimate that the annual revenue cost of a refundable retirement savings contribution credit will be about \$4.2 billion between 2007 and 2015.

As with other savings incentives, there is no clear evidence that these incentives are effective in increasing savings. The credit also has a cliff effect: because the credit is not phased down slowly, a small increase in

income can trigger a shift in the percentage credit rate and raise taxes significantly.

Selected Bibliography

Brady, Peter, and Warren B. Hrung. Assessing the Effectiveness of the Saver's Credit: Preliminary Evidence from the First Year. Paper presented at the National Tax Association Meetings, Miami, FL, November 2005.

Duflo, Ester, et al. "Saving Incentives for Low- and Middle-Income Families: Evidence from a Field Experiment with H&R Block," *Quarterly Journal of Economics*, v. 121, no. 4, November 2006, pp. 1311-1346.

Gale, William G., J. Mark Iwry, and Peter R. Orszag, "The Saver's Credit: Expanding Retirement Savings for Middle- and Lower-Income Americans," The Retirement Security Project, No. 2005-2, March 2005.

Hungerford, Thomas L. Savings Incentives: What May Work, What May Not, U.S. Library of Congress, Congressional Research Service Report RL33482, Washington, DC: June 10, 2011.

Kiefer, Donald, et al. "The Economic Growth and Tax Relief Reconciliation Act of 2001: Overview and Assessment of Effects on Taxpayers," *National Tax Journal*, v. 55, March 2002, pp. 89-118.

Koenig, Gary, and Robert Harvey. "Utilization of the Saver's Credit: An Analysis of the First Year," *National Tax Journal*, v. 58, no. 4, December 2005, pp. 787-806.

Orszag, Peter. "The Retirement Savings Component of Last Year's Tax Bill: Why It Is Premature to Make Them Permanent." Center on Budget Policies and Priorities, September 18, 2003.

White, Craig G. "Does the Saver's Credit Offer an Incentive to Lower Income Families?" *Tax Notes*, v. 96, September 16, 2002, pp. 1633-1640.

Sullivan, Martin. "Economic Analysis: With Little Fanfare, Gephardt Introduces Sweeping Pension Reform." *Tax Notes*, v. 95, June 17, 2002, pp. 1709-1710.

Income Security

EXCLUSION OF OTHER EMPLOYEE BENEFITS: PREMIUMS ON GROUP TERM LIFE INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.6		1.6
2012	1.7	-	1.7
2013	1.9	-	1.9
2014	1.9	-	1.9
2015	2.0	-	2.0

Authorization

Section 79 and L.O. 1014, 2 C.B. 8 (1920).

Description

The cost of employer-provided group-term life insurance plans that satisfy "anti-discrimination" provisions, net of employee contributions, above a \$50,000 coverage threshold is excluded from employees' gross income. The cost of group-term life insurance imputed for an individual employee is usually calculated by multiplying the amount of insurance (in thousands of dollars) by an age-group-specific monthly unit cost factor taken a from U.S. Treasury table (published in Treasury Regulations, Subchapter A, Sec. 1.79-3). For example, suppose a 37-year-old employee receives \$150,000 in group-term life insurance coverage for a full year from his employer and pays no premiums himself. The coverage eligible for the exclusion (\$100,000) is then multiplied by the unit cost factor for employees aged 35-39 (\$.09/month per \$1,000 of coverage) taken from the Treasury table, giving an imputed monthly cost of \$9 and an annual imputed cost of \$108. Thus, the term life insurance coverage of this employee would be considered as increasing his taxable income by \$108, even if the cost of obtaining comparable term life insurance coverage were higher.

The group-term life insurance exclusion is subject to "anti-discrimination" provisions intended to ensure that benefits are spread widely and equitably among employees. Plans may fail to meet those provisions if only a narrow subset of employees receives benefits or if the plan discriminates in favor of "key employees" or if "key employees" comprise the bulk of the beneficiaries. Officers of a firm, five-percent owners, one-percent owners earning more than \$150,000, or top 10 employee-owners are generally deemed key employees. If a group-term life insurance plan fails to satisfy "anti-discrimination" provisions, the plan's actual cost, rather than the cost given by the Treasury-provided table, is added to the key employee's taxable income.

Impact

Employer-provided group-term life insurance plans are a form of employee compensation. Because the full value of the insurance coverage is not taxed, a firm can provide this compensation at lower cost than the gross amount of taxable wages sufficient to allow an employee to purchase the same amount of insurance. Group term life insurance is a significant portion of total life insurance. Part of the value of this fringe benefit is exempt from income tax because a portion of the value of the term insurance coverage and any life insurance proceeds paid if the employee dies are excluded from gross taxable income.

Self-employed individuals or those who work for an employer without such a plan derive no advantage from this tax subsidy for life insurance coverage. The Bureau of Labor Statistics National Compensation Survey found that higher-wage employees and employees working for large firms and for governments are more likely to receive life insurance benefits from their employer.

Rationale

This exclusion was originally allowed, without limitation of coverage, by administrative legal opinion (L.O. 1014, 2 C.B. 8 (1920)). Insurance and pension benefits in a reasonable amount were excluded from World War II era wage and price controls. (P.L. 77-729, 56 Stat. 765; Executive Order signed October 2, 1942, Title VI), which may have influenced subsequent court and regulatory opinions.

The \$50,000 limit on the amount subject to exclusion was enacted in 1964. Reports accompanying that legislation reasoned that the exclusion

would encourage the purchase of group life insurance and assist in keeping the family unit intact upon death of the breadwinner. The further limitation on the exclusion available for key employees in discriminatory plans was enacted in 1982, and expanded in 1984 to apply to post-retirement life insurance coverage. In 1986, more restrictive rules regarding anti-discrimination were adopted, but were repealed in 1989 as part of debt limit legislation (P.L. 101-140).

The President's Advisory Panel on Federal Tax Reform, which issued its final report in November 2005, recommended elimination of the group-term life insurance exemption on equity grounds. The Advisory Panel argued that providing this tax benefit to a small number of employees requires higher tax rates on others. Congress has adopted no legislation that would implement recommendations of the Advisory Panel.

In January 2007, Representative Michael Burgess introduced H.R.377, which would amend the Internal Revenue Code of 1986 to increase the dollar limitation on employer-provided group term life insurance that can be excluded from the gross income of the employee. This bill was referred to the Committee on Ways and Means, but no further action was taken.

Assessment

Encouraging individuals to purchase more life insurance may be justified by concerns that many individuals would fail to buy prudent amounts of life insurance on their own, which could expose surviving family members to financial vulnerabilities. Subsidizing life insurance coverage may help provide a minimum standard of living for surviving dependent individuals.

The form of this exclusion may raise horizontal and vertical equity issues. Aside from administrative convenience, the rationale for providing insurance subsidies to employees, but not to the self-employed or those who are not employed is not obvious. As with many other fringe benefits, higher-income individuals probably receive more benefits from this exclusion because their marginal tax rates are higher and because they are more likely to receive group life insurance benefits from their employers. Lower-income individuals, whose surviving dependents are probably more financially vulnerable, probably benefit less from this exclusion.

This exclusion may motivate employers and employees to design compensation packages that increase term life insurance coverage of workers. Whether this exclusion is the most efficient method of encouraging purchases of prudent levels of life insurance coverage is unclear.

Selected Bibliography

Butler, Richard J. The Economics of Social Insurance and Employee Benefits. Berlin: Springer, 1999.

Hacker, Jacob S. The Divided Welfare State: The Battle over Public and Private Social Benefits in the United States. New York: Cambridge, 2002.

International Fiscal Association, *The Taxation of Employee Fringe Benefits: A Report Based on the Proceedings of a Seminar Held in Florence, Italy, in 1993*, IFA Congress Seminar Series, No 18b. Dordrecht, The Netherlands: Kluwer, September 1995.

Murray, John E. Origins of American Health Insurance: A History of Industrial Sickness Funds. New Haven, CT: Yale University Press, 2007.

Sunley, Emil. "Employee Benefits and Transfer Payments," *Comprehensive Income Taxation*, ed. Joseph A. Pechman. Washington, DC: The Brookings Institution, 1977, pp. 75-106.

Turner, Robert W. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy (2nd ed.)*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005, pp.159-162.

President's Advisory Panel on Federal Tax Reform. Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System: Report of the President's Advisory Panel on Federal Tax Reform. Washington, DC: November 2005, p. 85.

"Taxation of Employee Accident and Health Plans Before and Under the 1954 Code," *Yale Law Journal* 64(2), December 1954, pp. 222-247.

- U.S. General Accounting Office. *Effects of Changing the Tax Treatment of Fringe Benefits*. Washington, DC: U.S. Government Printing Office, April 1992.
- U.S. Department of Labor, Bureau of Labor Statistics, "Employee Benefits in the United States, March 2008," Press release USDL: 08-1122, August 7, 2008.
- U.S. Treasury, Internal Revenue Service, Tax Decision 8821 (Group-Term Insurance; Uniform Premiums), May 25, 1999, available at: [http://www.irs.gov/pub/irs-regs/td8821.pdf].
- . Publication 15-B (2012), "Employers' Tax Guide to Fringe Benefits." Available at http://www.irs.gov/publications/p15b/index.html.
- . Regulations, Subchapter A, Sec. 1.79-3, "Determination of Amount Equal to Cost of Group-Term Life Insurance."

Income Security

EXCLUSION OF OTHER EMPLOYEE BENEFITS: PREMIUMS ON ACCIDENT AND DISABILITY INSURANCE

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	3.4	-	3.4
2012	3.6	-	3.6
2013	3.7	-	3.7
2014	3.8	-	3.8
2015	4.0	~	4.0

Authorization

Sections 105 and 106.

Description

Premiums paid by employers for employee accident and disability insurance plans are excluded from the gross taxable income of employees. Although benefits paid to employees are generally taxable, payments that relate to permanent injuries are excluded from taxable income so long as those payments are computed without regard to the amount of time an employee is absent from work.

Impact

As with term life insurance, the employer's cost is less than he would have to pay in wages that are taxable, to confer the same benefit on the employee because the value of this insurance coverage is not taxed. Employers thus are encouraged to buy such insurance for employees. Because some proceeds from accident and disability insurance plans, as well as the premiums paid by the employer, are excluded from gross income, the value of the fringe benefit is generally exempted from federal income tax.

The Bureau of Labor Statistics National Compensation Survey found that higher-wage employees and employees working for large firms and for governments are more likely to receive insurance benefits from their employer. As with many other fringe benefits, higher-income individuals also receive more benefits from this exclusion because their marginal tax rates are higher. One study that analyzed changes in Canadian tax subsidies for employer-provided supplementary health insurance found that a 1% reduction in tax subsidies led to a 0.5% decrease in coverage. This suggests that employers respond to tax incentives when designing benefit packages.

Rationale

Early 20th century tax laws excluded payments connected to injuries or sickness from taxable income if received from accident or health insurance or from workers' compensation plans. In 1939, Congress added an exclusion for sick pay. In 1943, the IRS held that employer payments to employees connected to injury or sickness, even if administered as a well-defined plan, were not exempt from employee's income, while accident and health benefits paid as insurance policy proceeds (according to the IRS definition of 'insurance') were exempted from gross income. In 1954, Congress modified the exemption of accident and health benefits in an attempt to equalize the tax treatment of benefits through an insurance plan and benefits provided in other ways. Encouraging individuals to purchase more accident or disability insurance may be justified by concerns that many individuals would fail to buy prudent amounts of insurance on their own, which could increase financial vulnerabilities of workers and their families.

Assessment

Since public programs (Social Security and workman's compensation) provide a minimum level of disability payments, the justification for providing a subsidy for additional benefits is unclear. The rules that determine who qualifies for accident and disability insurance benefits, however, can be very different for public and private plans.

The form of the exclusion may raise questions of horizontal and vertical equity. As with many other fringe benefits, higher-income individuals probably receive more benefits from this exclusion because their marginal tax rates are higher and because they are more likely to receive insurance benefits from their employers. Lower-income individuals, who may have more difficulty protecting themselves from income losses due to accident or disability, probably benefit less from this exclusion. This exclusion may motivate employers and employees to design compensation packages that increase accident and disability insurance coverage of workers. Whether this

exclusion is the most efficient method of encouraging purchases of prudent levels of insurance coverage is unclear.

Selected Bibliography

Butler, Richard J. The Economics of Social Insurance and Employee Benefits. Berlin: Springer, 1999.

Finkelstein, Amy N. "The Effect of Tax Subsidies to Employer-provided Supplementary Health Insurance: Evidence from Canada." *Journal of Public Economics*, vol. 84, 2002, pp. 305–339.

Hacker, Jacob S. The Divided Welfare State: The Battle over Public and Private Social Benefits in the United States. New York: Cambridge, 2002.

Hargesheimer, Philip K., "What is a Plan under Internal Revenue Code Section 105(d)?" *Ohio State Law Journal* 28, 1967, pp. 483-501.

International Fiscal Association, *The Taxation of Employee Fringe Benefits: A Report Based on the Proceedings of a Seminar Held in Florence, Italy, in 1993*, IFA Congress Seminar Series, No 18b. Dordrecht, The Netherlands: Kluwer, September 1995.

Murray, John E. Origins of American Health Insurance: A History of Industrial Sickness Funds, New Haven: Yale, 2007.

Simon, Karla W. "Fringe Benefits and Tax Reform Historical Blunders and a Proposal for Structural Change," *University of Florida Law Review*, vol. 36, 1984, pp. 889-895.

"Taxation of Employee Accident and Health Plans Before and Under the 1954 Code," *Yale Law Journal* 64(2), December 1954, pp. 222-247.

Turner, Robert W. "Fringe Benefits," in *The Encyclopedia of Taxation and Tax Policy (2nd ed.)*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Wash., DC: Urban Institute, 2005, pp. 159-162.

- U.S. Congress, House Committee on Ways and Means, "An Appraisal of Individual Income Tax Exclusions" (Roy Wentz), *Tax Revision Compendium*. Committee Print, 1959, pp. 329-40.
- U.S. Congress, Senate Committee on Finance, "Internal Revenue Code of 1954," Report no. 1622, June 18, 1954, pp. 15-16.
- U.S. Internal Revenue Service, General Counsel Memorandum 23511, 1943 Cumulative Bulletin 86.
- . Publication 15-B (2012), "Employers' Tax Guide to Fringe Benefits." Available at http://www.irs.gov/publications/p15b/index.html.
- U.S. Department of Labor, Bureau of Labor Statistics, "Employee Benefits in the United States, March 2008," Press release USDL: 08-1122, August 7, 2008.
- U.S. General Accounting Office. *Effects of Changing the Tax Treatment of Fringe Benefits*. Washington, DC: U.S. Government Printing Office, April 1992.

Income Security

PHASE OUT OF THE PERSONAL EXEMPTION AND DISALLOWANCE OF THE PERSONAL EXEMPTION AND THE STANDARD DEDUCTION AGAINST THE AMT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	-9.8	-	-9.8
2012	-40.7	-	-40.7
2013	-56.0	-	-56.0
2014	-43.1	-	-43.1
2015	-49.1	-	-49.1

Note: The personal exemption phaseout is scheduled to be reinstated after the end of 2012, which is reflected in these estimates.

Authorization

Sections 151(d) and 55(d).

Description

Prior to 2010, the deduction for personal and dependency exemptions was phased out for higher income taxpayers. The total exemption amount was reduced by 2 percent for each \$2,500 (\$1,250 for married persons filing separately) of adjusted gross income (AGI) above the threshold amount. The 2009 threshold amounts were \$250,200 for joint filers, \$208,500 for heads of household, \$166,800 for single filers, and \$125,100 for married persons filing separately. The personal exemption phase-out was initially reduced beginning in 2006 and is fully eliminated for tax years beginning after 2010 (the elimination, however, expires at the end of 2012).

The alternative minimum tax (AMT) standard deduction (or exemption amount) is phased out for taxpayers with high AMT income (AMTI). In 2011, the exemption amount was \$74,450 for joint filers and \$48,450 for individuals. For the 2012 tax year and beyond, the exemption amount drops

to \$45,000 for joint filers and \$33,750 for single filers. Under the phase-out, these exemption amounts are reduced by \$0.25 for every \$1 of AMTI over \$150,000 for joint filers and \$112,500 for single filers. Thus, taxpayers filing jointly with AMTI at or over \$447,800 (\$306,300 for single filers) in 2011 did not have an AMT standard deduction.

Personal exemptions (\$3,650 per exemption under the regular tax in 2010) are not allowed against AMTI.

Impact

These provisions are designed to increase taxes on higher income taxpayers. Almost 99 percent of the burden of these provisions falls on taxpayers with income above \$100,000.

Distribution by Income Class of Tax Expenditure, Phase out of Personal Exemption for Regular Income Tax; Denial of Personal Exemption and Standard Deduction for AMT, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	0.0
\$20 to \$30	0.0
\$30 to \$40	0.0
\$40 to \$50	0.0
\$50 to \$75	0.1
\$75 to \$100	0.5
\$100 to \$200	91.5
\$200 and over	88.0

Rationale

The Tax Reform Act of 1986 (P.L. 99-514) created a tax structure with two marginal tax rates (15 percent and 28 percent) and a 5 percent surcharge on the taxable income of certain high-income taxpayers. The surcharge was phased out as income increased and consequently created a tax rate "bubble" of 33 percent for some taxpayers. The surcharge was essentially created to phase out the tax benefits of the 15 percent tax rate and personal exemptions

for high-income taxpayers. The Omnibus Budget Reconciliation Act of 1990 (OBRA90, P.L. 101-508) repealed the 5 percent surcharge and instituted the current explicit approach for phasing out the tax benefits of the personal exemption. The Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-15) contained provisions to gradually repeal the personal exemption phaseout. The repeal, set to expire after 2010, was extended for two years by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312).

The Emergency Economic Stabilization Act of 2008 (P.L. 110-343) increased the AMT exemption amount to \$69,950 for joint filers and \$46,200 for individuals for the 2008 tax year, but did not change the AMTI levels that begin the phase-out of the exemption. The increased exemption amounts are intended to keep the same number of taxpayers on the AMT from year to year as the exemption amounts are not indexed for inflation. Increasing the exemption amount also raises the income level where the phase-out of the exemption is complete. The increased exemption amounts and accompanying expansion of the phase-out dampen the effect of the AMT on higher income taxpayers.

The American Recovery and Reinvestment Act of 2009 (P.L. 111-5) increased the AMT exemption for 2009 to \$46,200 (individuals) and \$70,950 (joint returns). The Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312) increased the AMT exemption amounts to \$47,450 (individuals) and \$72,450 (joint returns) for 2010 and to \$48,450 (individuals) and \$74,450 (joint Returns) for 2011.

Assessment

The personal exemption phaseout rules were set to expire in 1995 under OBRA90. But budgetary pressures led to tax increases in 1993, which included making the personal exemption phaseout permanent. By 2001, Congress cited three reasons for eliminating the personal exemption phaseout. First, the personal exemption phaseout is too complex. Second, the phaseout is essentially a hidden marginal tax rate increase on higher-income taxpayers. Lastly, the phaseout imposes excessively high marginal tax rates on families.

The AMT provisions, the phaseout of the AMT standard deduction and disallowance of personal exemptions against AMTI, raise the minimum tax and increase the marginal tax rate disproportionately on high income families. The AMT generally and the phaseout of the standard deduction

specifically also increase the complexity and administrative cost of the personal income tax.

Selected Bibliography

Esenwein, Gregg A. *The PEP and Pease Provisions of the Federal Individual Income Tax*, Library of Congress, Congressional Research Service Report RS22464, Washington, DC: June 2006.

Hungerford, Thomas L. "The Redistributive Effect of Selected Federal Transfer and Tax Provisions," *Public Finance Review*, v. 38, no. 4, July 2010, pp. 450-472.

— . Deficit Reduction: The Economic and Tax Revenue Effects of Personal Exemption Phaseout (PEP) and Limitation on Itemized Deductions (Pease), Library of Congress, Congressional Research Service Report R41796, April 29, 2011.

Maguire, Steven. *The Alternative Minimum Tax for Individuals*, Library of Congress, Congressional Research Service Report RL30149, Washington, DC: March 24, 2010.

Steuerle, Eugene. "Fixing the AMT by Raising Tax Rates." *Tax Notes*, April 9, 2007, pp. 171-172.

Income Security

EXCLUSION OF SURVIVOR ANNUITIES PAID TO FAMILIES OF PUBLIC SAFETY OFFICERS KILLED IN THE LINE OF DUTY

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	*	(1)
2012	(¹)	-	(1)
2013	(¹)	-	(1)
2014	(1)	-	(¹)
2015	(1)	-	(1)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Section 101(h).

Description

The surviving spouse of a public safety officer killed in the line of duty can exclude from gross income a survivor annuity payment under a governmental pension plan. The annuity must be attributable to the officer's service as a public safety officer.

Impact

The exclusion is available to all surviving spouses who qualify, regardless of income level.

Rationale

Congress believed that surviving spouses of public safety officers killed in the line of duty should be subject to the same rules as survivors of military service personnel killed in combat. This provision was part of the Taxpayer Relief Act of 1997 (P.L. 105-34).

Assessment

Surviving spouses of public safety officers killed in the line of duty are now treated comparably to surviving spouses of military service personnel killed in combat. The annual revenue loss from this item has been less than \$50 million since its enactment in 1997.

Social Security and Railroad Retirement

EXCLUSION OF UNTAXED SOCIAL SECURITY AND RAILROAD RETIREMENT BENEFITS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	31.0	-	31.0
2012	32.0	-	32.0
2013	39.2	-	39.2
2014	42.6	-	42.6
2015	44.1	-	44.1

Authorization

Sec. 86 I.R.C. 1954 and I.T. 3194, 1938-1 C.B. 114 and I.T. 3229, 1938-2136, as superseded by Rev. Ruling 69-43, 1969-1 C.B. 310; I.T. 3447, 1941-1 C.B. 191, as superseded by Rev. Ruling 70-217, 1970-1 C.B. 12.

Description

In general, the Social Security and Railroad Retirement benefits of most recipients are not subject to tax. A portion of Social Security and certain (Tier I) Railroad Retirement benefits is included in income for taxpayers whose "provisional income" exceeds certain thresholds.

Tier I Railroad Retirement benefits are those provided by the Railroad Retirement System that are equivalent to the Social Security benefit that would be received by the railroad worker were he or she covered by Social Security. "Provisional income" is adjusted gross income plus one-half the Social Security benefit and otherwise tax-exempt "interest" income (i.e., interest from tax-exempt bonds).

The thresholds below which no Social Security or Tier I Railroad Retirement benefits are taxable are \$25,000 (single), and \$32,000 (married couple filing a joint return).

If provisional income is between the \$25,000 threshold (\$32,000 for a married couple) and a second-level threshold of \$34,000 (\$44,000 for a married couple), the amount of benefits subject to tax is the lesser of: (1) 50 percent of benefits; or (2) 50 percent of provisional income in excess of the first threshold.

If provisional income is above the second threshold, the amount of benefits subject to tax is the lesser of:

- (1) 85 percent of benefits or
- (2) 85 percent of income above the second threshold, plus the smaller of (a) \$4,500 (\$6,000 for a married couple) or, (b) 50 percent of benefits.

The thresholds are not indexed for inflation.

For a married person filing separately who has lived with his or her spouse at any time during the tax year, taxable benefits are the lesser of 85 percent of benefits or 85 percent of provisional income.

The tax treatment of Social Security and Tier I Railroad Retirement benefits differs from that of pension benefits. For pension benefits, all benefits that exceed (or are not attributable to) the amount of the employee's contribution are fully taxable.

The proceeds from taxation of Social Security and Tier I Railroad Retirement benefits at the 50 percent rate are credited to the Social Security Trust Funds and the National Railroad Retirement Investment Trust, respectively. Proceeds from taxation of Social Security benefits and Tier I Railroad Retirement benefits at the 85 percent rate are credited to the Hospital Insurance Trust Fund (for Medicare).

Impact

According to the 2008 Ways and Means Green Book, about 61 percent of Social Security and Tier I Railroad Retirement recipients in 2005 paid no tax on their benefits. The distribution of the tax expenditure is shown below.

Distribution by Income Class of Tax Expenditure, Untaxed Social Security and Railroad Retirement Benefits, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	0.8
\$20 to \$30	5.0
\$30 to \$40	13.4
\$40 to \$50	17.5
\$50 to \$75	34.8
\$75 to \$100	20.9
\$100 to \$200	6.2
\$200 and over	1.4

Rationale

Until 1984, Social Security benefits were exempt from the federal income tax. The original exclusion arose from rulings made in 1938 and 1941 by the then Bureau of Internal Revenue (I.T. 3194, I.T. 3447). The exclusion of benefits paid under the Railroad Retirement System was enacted in the Railroad Retirement Act of 1935.

For years many program analysts questioned the basis for the rulings on Social Security and advocated that the treatment of Social Security benefits for tax purposes be the same as it is for other pension income. Pension benefits are now fully taxable except for the proportion of projected lifetime benefits attributable to the worker's contributions. Financial pressures on the Social Security program in the early 1980s also increased interest in taxing benefits. The 1981 National Commission on Social Security Reform proposed taxing one-half of Social Security benefits received by persons whose income exceeded certain amounts and crediting the proceeds to the Social Security Trust Fund. The inclusion of one-half of benefits represented the employer contribution to the benefits.

In enacting the 1983 Social Security Amendments (P.L. 98-21) in March 1983, Congress essentially adopted the Commission's recommendation, but modified it to phase in the tax on benefits gradually, as income rose above threshold amounts. At the same time, it modified the tax

treatment of Tier I Railroad Retirement benefits to conform to the treatment of Social Security benefits.

In his FY 1994 budget, President Clinton proposed that the taxable proportion of Social Security and Tier I Railroad Retirement benefits be increased to 85 percent effective in 1994, with the proceeds credited to Medicare's Hospital Insurance (HI) Trust Fund. At that time is was estimated that the highest paid category of worker would, during the worker's lifetime, contribute fifteen percent of the value of the Social Security benefits received by the worker. That is, at least eighty-five percent of the Social Security benefits received by a retiree could not be attributed to contributions by the retiree. Congress approved this proposal as part of the Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66), but limited it to recipients whose threshold incomes exceed \$34,000 (single) or \$44,000 (couple). This introduced the current two levels of taxation.

Assessment

Principles of horizontal equity (equal treatment of those in equal circumstances) generally support the idea of treating Social Security and Tier I Railroad Retirement benefits similarly to other sources of retirement income. Horizontal equity suggests that equal income, regardless of source, represents equal ability to pay taxes, and therefore should be equally taxed. Just as the portion of other pension benefits and IRA distributions on which taxes have never been paid is fully taxable, so too should the portion of Social Security and Tier I Railroad Retirement benefits not attributable to the individual's contributions be fully taxed.

In 1993, it was estimated that if Social Security benefits received the same tax treatment as pensions, on average about 95 percent of benefits would be included in taxable income, and that the lowest proportion of benefits that would be taxable for anyone entering the work force that year would be 85 percent of benefits. Because of the administrative complexities involved in calculating the proportion of each individual's benefits, and because in theory it would ensure that no one would receive less of an exclusion than entitled to under other pension plans, a maximum of 85 percent of Social Security benefits is currently in taxable income.

To the extent that Social Security benefits reflect social welfare payments, it can be argued that benefits be taxed similar to other general untaxed social welfare payments and not like other retirement benefits. One exception to the concept of horizontal equity is social welfare payments —

payments made for the greater good (social welfare). Not all Social Security payments have a pension or other retirement income component and, unlike other pensions, more than one person may be entitled to benefits for a single worker. In addition, Social Security benefits are based on work earnings history and not contributions, with the formula providing additional benefits to recipients with lower work earnings histories.

Because the calculation of provisional income (to determine if benefits are taxable) includes a portion of Social Security benefits and certain otherwise untaxed income, the provisional income calculation can be compared to the income resources concept often used for means testing of various social benefits. Because the taxation increases as the provisional income increases, the after-tax Social Security benefits will decline as provisional income increases (but not below 15% of pre-tax benefits). This has resulted in the taxation of benefits being viewed as a "back-door" means test.

Under the current two level structure, all Social Security beneficiaries have some untaxed benefits. Taxes are imposed on at least half of the benefits for middle and upper income beneficiaries, while lower income beneficiaries have no benefits taxed.

Because the thresholds are not indexed for inflation, an increasing share of benefits are taxed over time.

Selected Bibliography

Brannon, Gerard M. "The Strange Precision in the Taxation of Social Security Benefits," *Tax Notes*. March 29, 1993.

Butrica, Barbara A., Richard W. Johnson, Karen E. Smith, and C. Eugene Steurle, "The Implicit Tax on Work at Older Ages", *National Tax Journal*, Vol. 59, June 2006, pp. 211-234.

Fellows, James A., and Haney, J. Edison. "Taxing the Middle Class," *Taxes*. October, 1993.

Scott, Christine and Janemarie Mulvey, Social Security Benefits: Calculation and History of Taxing Benefits, Library of Congress, Congressional Research Report RL32552. Washington, DC., 2011.

- U.S. Congress, Committee on Ways and Means, 2008 Green Book, Background Material and Data on the Programs Within the Jurisdiction of the Committee on Ways and Means, available on the Committee website.
- , House of Representatives. *Omnibus Budget Reconciliation Act of 1993*, Conference Report No. 103-213. August 4, 1993.

Weiner, David. "Social Security Benefits, Federal Taxation," in *The Encyclopedia of Taxation and Tax Policy*, eds. Joseph J. Cordes, Robert O. Ebel, and Jane G. Gravelle. Washington, DC: Urban Institute Press, 2005.

Veterans' Benefits and Services

EXCLUSION OF INTEREST ON STATE AND LOCAL GOVERNMENT BONDS FOR VETERANS' HOUSING

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	(1)	(¹)	(1)
2012	(¹)	(¹)	(1)
2013	(1)	(1)	(¹)
2014	$\binom{1}{2}$	(1)	(¹)
2015	(1)	(¹)	(¹)

⁽¹⁾ Positive tax expenditure of less than \$50 million.

Authorization

Sections 103, 141, 143, and 146 of the Internal Revenue Code of 1986.

Description

Veterans' housing bonds are used to provide mortgages at belowmarket interest rates on owner-occupied principal residences of homebuyers who are veterans. These veterans' housing bonds are classified as privateactivity bonds rather than governmental bonds because a substantial portion of their benefits accrues to individuals rather than to the general public.

Each state with an approved program is subject to an annual volume cap related to its average veterans' housing bond volume between 1979 and 1985. For further discussion of the distinction between governmental bonds and private-activity bonds, see the entry under *General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.*

Impact

Since interest on the bonds is tax exempt, purchasers are willing to accept lower before-tax rates of interest than on taxable securities. These low interest rates enable issuers to offer mortgages on veterans' owner-occupied housing at reduced mortgage interest rates.

Some of the benefits of the tax exemption also flow to bondholders. For a discussion of the factors that determine the shares of benefits going to bondholders and homeowners, and estimates of the distribution of tax-exempt interest income by income class, see the "Impact" discussion under General Purpose Public Assistance: Exclusion of Interest on Public Purpose State and Local Debt.

Rationale

Veterans' housing bonds were first issued by the states after World War II, when both state and federal governments enacted programs to provide benefits to veterans as a reward for their service to the Nation.

The Omnibus Budget Reconciliation Act of 1980 required that veterans' housing bonds must be general obligations of the state. The Deficit Reduction Act of 1984 restricted the issuance of these bonds to the five states - Alaska, California, Oregon, Texas, and Wisconsin - that had qualified programs in existence before June 22, 1984, and limited issuance to each State's average issuance between 1979 and 1984.

Loans were restricted to veterans who served in active duty any time before 1977 and whose application for the mortgage financing occurred before the later of 30 years after leaving the service or January 31, 1985, thereby imposing an effective sunset date for the year 2007. Loans were also restricted to principal residences.

The Tax Increase Prevention and Reconciliation Act required that payors of state and municipal bond tax-exempt interest begin to report those payments to the Internal Revenue Service after December 31, 2005. The manner of reporting is similar to reporting requirements for interest paid on taxable obligations.

The most recent changes to the program were enacted by the Heroes Earnings Assistance and Relief Tax Act of 2008, P.L. 110-245, which increased the annual issue limits to \$100 million for Alaska, Oregon, and Wisconsin. In the case of California and Texas, the Act removed a provision

restricting eligibility to veterans that served before 1977. Additionally, the exception for veterans from the first-time homebuyer requirement was made permanent.

Assessment

The need for these bonds has been questioned, because veterans are eligible for numerous other housing subsidies that encourage home ownership and reduce the cost of their housing. As one of many categories of tax-exempt private-activity bonds, veterans' housing bonds have been criticized because they increase the financing costs of bonds issued for public capital stock and increase the supply of assets available to individuals and corporations to shelter their income from taxation.

Selected Bibliography

Cooperstein, Richard L. "Economic Policy Analysis of Mortgage Revenue Bonds." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

— . "The Economics of Mortgage Revenue Bonds: A Still Small Voice." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning, Boston, MA: Kluwer Academic Publishers, 1992.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457. September 10, 2010.

- . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638, June 19, 2012.
- U.S. Congress, Joint Committee on Taxation. *General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984*, Committee Print, 98th Congress, 2nd session. December 31, 1984, pp. 903-958.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington. DC: The Urban Institute Press, 1991.

Veterans' Benefits and Services

EXCLUSION OF VETERANS' BENEFITS AND SERVICES (1) EXCLUSION OF VETERANS' DISABILITY COMPENSATION

(2) EXCLUSION OF VETERANS' PENSIONS (3) EXCLUSION OF READJUSTMENT BENEFITS

Estimated Revenue Loss

[in billions of dollars]

	Individuals				
Fiscal Year	Veterans Disability Compensation	Veterans Pensions	Readjustment Benefits	Total	
2011	5.5	0.1	1.1	6.7	
2012	5.8	0.1	1.2	7.1	
2013	5.6	0.1	1.3	7.0	
2014	5.7	0.1	1.4	7.2	
2015	5.8	0.2	1.5	7.5	

Authorization

38 U.S.C. Section 5301.

Description

All benefits administered by the Department of Veterans Affairs (VA) are exempt from taxation. Such benefits include those for veterans' disability compensation, veterans' pension payments, and readjustment benefit payments.

Veterans' service-connected disability compensation payments result from the veteran having a service-related wound, injury, or disease. Typically, benefits increase with the severity of disability. Veterans whose service-connected disabilities are rated at 30 percent or more are entitled to additional allowances for dependents. Veterans with a single disability rated

60 percent or more, or two or more disabilities with a combined rating of 70 percent or more may receive compensation at the 100-percent level if they are deemed unemployable by the VA.

Dependency and indemnity compensation payments are made to surviving spouses and qualified parents of: service members who die on active duty; veterans who die due to a service-connected illness or condition; and veterans who are totally disabled for ten or more years before their death due to a non-service-connected illness or condition (the ten year requirement is reduced to 5 years if the veteran leaves military service totally disabled, and is 1 year for prisoners of war).

Veteran pensions are available to support veterans with a limited income who had at least one day of military service during a war period and at least 90 days of active duty service, or were discharged due to a service-connected disability. Benefits are paid to veterans over age 65 or to totally disabled veterans with disabilities unrelated to their military service.

Pension benefits are based on "countable" income (the larger the income, the smaller the pension) with no payments made to veterans whose assets may be used to provide adequate maintenance. For veterans coming on the rolls after December 31, 1978, countable income includes earnings of the veteran, spouse, and dependent children, if any. Veterans who were on the rolls prior to that date may elect coverage under prior law, which excludes from countable income the income of a spouse, among other items.

Readjustment benefits for veterans include cash payments for education or training; vocational rehabilitation training or support payments; grants for adapting automobiles, homes, or equipment; and a clothing allowance for certain disabled veterans.

Health care for veterans is included in the tax expenditure for exclusion of medical care and TRICARE medical insurance for military dependents, retiree, and retiree dependents not enrolled in Medicare.

Impact

Beneficiaries of these major veterans' programs pay less tax than other taxpayers with the same or smaller economic incomes. Since these exclusions are not counted as part of income, the tax savings are a percentage of the amount excluded, depending on the marginal tax bracket of the veteran. Thus, the exclusion amounts will have greater value for veterans with higher incomes than for those with lower incomes.

Rationale

The rationale for excluding veterans' benefits from taxation is not clear. The tax exclusion of benefits was adopted in 1917, during World War I. Many have concluded that the exclusion is in recognition of the extraordinary sacrifices made by armed forces personnel, especially during periods of war.

Assessment

The exclusion of veterans' benefits alters the distribution of payments and favors higher-income individuals. The rating schedule for veterans disability compensation was intended to reflect the average impact of the disability on the average worker. However, because the rating is not directly rated to the impact of disability on the veteran's actual or potential earnings. the tax exempt status of disability compensation payments may reflect a tax exemption for an inaccurate estimate of the veteran's lost earnings because of the disability. Some view veterans' compensation as a career indemnity payment owed to those disabled to any degree while serving in the nation's armed forces. If benefits were to become taxable, higher benefit levels would be required if lost income were to be replaced. Some disabled veterans would find it difficult to increase working hours to make up for the loss of expected compensation payments. Some commentators have noted that if veterans with new disability ratings below 30 percent were to be made ineligible for compensation it would concentrate spending on those veterans most impaired. However, in FY2011, while 47.7 percent of veterans receiving disability compensation had a combined rating of 30 percent or less, their disability compensation payments were only 11.3 percent of all disability compensation payments in FY2011.

Selected Bibliography

Cullinane, Danielle. *Compensation for Work-Related Injury and Illness*. Santa Monica, CA, RAND, 1992. 60 p. (RAND Publication Series N-3343-FMP).

Ferris, Nancy. "Serving Those Who Served," *Government Executive*, v. 30 (January 1998), pp. 18, 20, 22, 24.

Ogloblin, Peter K. Military Compensation Background Papers: Compensation Elements and Related Manpower Cost Items, Their Purposes and Legislative Backgrounds. Washington, DC: Department of Defense, Office of the Secretary of Defense, U.S. Government Printing Office, November 1991, pp. 633-645.

Poulson, Linda L. and Oenanthe Seetharaman. "Taxes and the Armed Forces," *The CPA Journal*, April 1996, pp. 22-26.

- U.S. Congress, Congressional Budget Office. *Budget Options*. "Narrow the eligibility for Veterans' Disability Compensation to Veterans Whose Disabilities are Related to Their Military Duties," Washington, DC: February 2007.
- U.S. Congress, General Accounting Office. VA Disability Compensation: Comparison of VA Benefits with Those of Workers' Compensation Programs; Report to the Chairman, Subcommittee on Benefits, Committee on Veterans' Affairs, House of Representatives, GAO Report GAO/HEHS-97-5. Washington, DC: U.S. Government Printing Office. 1997.
- . VA Disability Compensation: Disability Ratings May Not Reflect Veterans' Economic Losses; Report to the Chairman, Subcommittee on Compensation, Pension, Insurance and Memorial Affairs, Committee on Veterans' Affairs, House of Representatives, GAO Report GAO/HEHS-97-9. Washington, DC: U.S. Government Printing Office. 1997.
- U.S. Congress, House Committee on Ways and Means. 2008 Green Book; Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means, available on the Committee website.

Veterans' Disability Benefits Commission, *Honoring the Call to Duty:* Veterans' Disability Benefits in the 21st Century, October, 2007.

General Purpose Fiscal Assistance

EXCLUSION OF INTEREST ON PUBLIC PURPOSE STATE AND LOCAL GOVERNMENT DEBT

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	21.9	8.5	30.4
2012	23.1	9.0	32.1
2013	27.8	9.5	37.3
2014	28.6	9.8	38.4
2015	29.4	10.0	39.4

Authorization

Sections 103, 141 and 146.

Description

Certain obligations of state and local governments qualify as "governmental" bonds. The interest income earned by individual and corporate purchasers of these bonds is excluded from taxable income. This interest income is not taxed because the bond proceeds generally are used to build capital facilities that are owned and operated by governmental entities and serves the general public interest, such as highways, schools, and government buildings. These bonds can be issued in unlimited amounts, although state governments do have of a variety of self-imposed debt limits.

Other obligations of state and local governments are classified as "private-activity" bonds. The interest income earned by individual and corporate purchasers of these bonds is included in taxable income. This interest income is taxed because the bond proceeds are believed to provide substantial benefits to private businesses and individuals and the bonds are repaid with revenue generated by the project, e.g., tolls or service charges. Tax exemption is available for a subset of these otherwise taxable private-

activity bonds if the proceeds are used to finance an activity included on a list of activities specified in the Code. Unlike governmental bonds, however, many of these tax-exempt, private-activity bonds may not be issued in unlimited amounts. Each state is subject to a federally imposed volume cap on new issues of these tax-exempt, private-activity bonds. In 2012, the cap was equal to the greater of \$95 per resident or \$284.56 million. Some qualified private activities, such as qualified public educational facilities, are subject to national caps and are not subject to the state volume cap. Still other facilities, such as government owned airports, docks, and wharves, are not capped. And finally, bonds issued by qualified 501(c)(3) entities and non-profit education entities are not subject to the volume cap.

Each activity included in the list of private activities eligible for taxexempt financing is discussed elsewhere in this document under the private activity's related budget function.

Impact

The impact of this tax expenditure can be measured by (1) how much additional public capital investment occurs because of this tax provision and by (2) the distributional effects across issuers and taxpayers. In the first case, the empirical evidence on the impact on public capital investment is mixed. The broad range of public projects financed with tax-exempt bonds diminishes the target efficiency of the public subsidy and complicates measurement of the tax subsidy's impact. Nonetheless, economy theory would predict that the lower relative price for municipal debt likely increases the investment in public capital.

The distributional impact of this interest exclusion can be viewed from two perspectives: first, the division of tax benefits between state and local governments and bond purchasers; and second, the distribution of the tax benefits among income classes. The direct benefits of the exempt interest income flow both to state and local governments and to the purchasers of the bonds. The exclusion of interest income causes the interest rate on state and local government obligations to be lower than the rate paid on comparable taxable bonds. In effect, the federal government pays part of state and local interest costs. For example, if the market rate on tax-exempt bonds is 5.0 percent when the taxable rate is 7.0 percent, there is a 2.0-percentage-point interest rate subsidy to state and local governments.

The interest exclusion also raises the after-tax return for some bond purchasers. A taxpayer facing a 15 percent marginal tax rate is better off purchasing a 7 percent taxable bond over a 5 percent tax-exempt bond. The after-tax return on the taxable bond is 5.95 percent which is greater than the 5 percent after-tax return on the tax-exempt bond. But a taxpayer facing a 35 percent marginal tax rate is better off buying a tax-exempt bond because the after-tax return on the taxable bond is 4.55 percent, and on the tax-exempt bond, 5 percent. These "inframarginal" investors in the 35 percent marginal tax bracket receive what have been characterized as windfall gains.

The allocation of benefits between the bondholders and state and local governments (and, implicitly, its taxpayer citizens) depends on the spread in interest rates between the tax-exempt and taxable bond market, the share of the tax-exempt bond volume purchased by individuals with marginal tax rates exceeding the market-clearing marginal tax rate, and the range of the marginal tax rate structure. The reduction of the top income tax rate of bond purchasers from the 70 percent individual rate that prevailed prior to 1981 to the 35 percent individual rate that prevailed in 2012 has increased the share of the tax benefits going to state and local governments.

The table below provides an estimate of the distribution by income class of tax-exempt interest income (including interest income from both governmental and private-activity bonds). The table also shows the share of total adjusted gross income for a variety of income ranges. In 2009, 66.9 percent of individuals' tax-exempt interest income is earned by returns with adjusted gross income in excess of \$100,000, although these returns represent only 12.4 percent of all returns. Returns below \$30,000 earn only 11.1 percent of tax-exempt interest income, although they represent 48.2 percent of all returns.

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Distribution of Adjusted Gross Income and Tax-Exempt Interest Income, 2009

	Percentage Distribution of:			
Income Class (in thousands of \$)	Total Returns	Net Adjusted Gross Income	Tax-Exempt Interest Income	
Below \$10	17.9	-1.0	6.1	
\$10 to \$20	17.0	4.6	1.9	
\$20 to \$30	13.3	6.1	3.0	
\$30 to \$40	10.2	6.6	2.6	
\$40 to \$50	7.7	6.3	3.1	
\$50 to \$75	13.3	15.1	8.8	
\$75 to \$100	8.2	13.0	7.5	
\$100 to \$200	9.6	23.6	17.4	
\$200 to \$500	2.3	11.9	17.8	
\$500 to \$1,000	0.4	4.4	9.8	
\$1,000 to \$1,500	0.1	1.7	4.5	
\$1,500 to \$2,000	< .05	1.0	2.7	
\$2,000 to \$5,000	< .05	2.4	6.3	
\$5,000 to \$10,000	< .05	1.3	3.1	
\$10,000 and over	< .05	3.1	5.3	

Source: IRS, Statistics of Income Division, July 2011

The revenue loss is even more concentrated in the higher income classes than the interest income because the average marginal tax rate (which determines the value of the tax benefit from the nontaxed interest income) is higher for higher-income classes. The over \$200,000 cohort, representing just 2.8 percent of returns, accounted for 49.5 percent of all tax-exempt interest income earned in 2009.

Rationale

This exemption has been in the income tax laws since 1913, and was based on the belief that state and local interest income had constitutional protection from federal government taxation. The argument in support of this

constitutional protection was rejected by the Supreme Court in 1988, South Carolina v. Baker (485 U.S. 505, [1988]). In spite of this loss of protection, many believe the exemption for governmental bonds is still justified on economic grounds, principally as a means of encouraging state and local governments to overcome a tendency to underinvest in public capital formation.

Bond issues whose debt service is supported by state and local tax bases have been left largely untouched by federal legislation, with a few exceptions such as arbitrage restrictions, denial of federal guarantee, and registration. The reason for this is that most of these bonds have been issued for the construction of public capital stock, such as schools, highways, sewer systems, and government buildings.

This has not been the case for revenue bonds without tax-base support and whose debt service is paid from revenue generated by the facilities built with the bond proceeds. These bonds were the subject of almost continual legislative scrutiny, beginning with the Revenue and Expenditure Control Act of 1968 and peaking with a comprehensive overhaul by the Tax Reform Act of 1986. This legislation focused on curbing issuance of the subset of tax-exempt revenue bonds used to finance the quasi-public investment activities of private businesses and individuals that are characterized as "private-activity" bonds. Each private activity eligible for tax exemption is discussed elsewhere in this document under the private activity's related budget function.

Assessment

This tax expenditure subsidizes the provision of state and local public services. A justification for a federal subsidy is that it encourages state and local taxpayers to provide public services that also benefit residents of other states or localities. The form of the subsidy has been questioned because it subsidizes one factor of public sector production, capital, and encourages state and local taxpayers to substitute capital for labor in the public production process. Critics maintain there is no evidence that any underconsumption of state and local public services is isolated in capital facilities and argue that, to the extent a subsidy of state and local public service provision is needed to obtain the service levels desired by federal taxpayers, the subsidy should not be restricted only to capital.

The efficiency of the subsidy, as measured by the federal revenue loss that shows up as reduced state and local interest costs rather than as windfall

gains for purchasers of the bonds, has also been the subject of considerable controversy. The state and local share of the benefits (but not the amount) depends to a great extent on the number of bond purchasers with marginal tax rates higher than the marginal tax rate of the purchaser who clears the market. The share of the subsidy received by state and local governments improved during the 1980s as the highest statutory marginal income tax rate on individuals dropped from 70 percent to 31 percent and on corporations from 46 percent to 34 percent. Currently, the highest current rate on individuals and corporations is 35 percent. The expiration (in 2012) of the tax cuts originally provided for in the Economic Growth Tax Relief and Reconciliation Act of 2001 (P.L. 107-16) and extended by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312), which included reductions in the highest tax rates, however, would again increase the inefficiency of the subsidy. Absent further congressional action, the 2013 top individual income tax rates are 36 percent and 39.6 percent.

Finally, the open-ended structure of the subsidy affects federal control of its budget and the amount of the revenue loss on governmental bonds is entirely dependent upon the decisions of state and local officials.

Selected Bibliography

Ang, Andrew, Vineer Bhansali, and Yuhang Xing. "Taxes on Tax-Exempt Bonds." *The Journal of Finance* v. 65, no. 2, 2010, pp. 565-601.

Chalmers, John M. R. "Systematic Risk and the Muni Puzzle." *National Tax Journal*, vol. 59, no. 4, December 2006, pp. 833-848.

Collinson, Dale S. and Hannah Burke. "Tax Credit Bonds and the Taxable Bond Option—A Growing Force in Municipal Finance," Journal of Taxation of Financial Products, v. 8, Issue 2, April 2009.

Fortune, Peter. "Tax-Exempt Bonds Really Do Subsidize Municipal Capital!" *National Tax Journal*, v. 51, March 1998, pp. 43-54.

— . "The Municipal Bond Market, Part II: Problems and Policies," *New England Economic Review*. May/June, 1992, pp. 47-64.

Galle, Brian D., and Ethan Yale. "Can Discriminatory State Taxation of Municipal Bonds be Justified?" *Tax Notes*, October 8, 2007, pp. 153-159.

Gordon, Roger H., and Gilbert E. Metcalf. "Do Tax-Exempt bonds Really Subsidize Municipal Capital?" *National Tax Journal*, v. 44, December 1991, pp. 71-79.

Gravelle, Jane G., and Jennifer Gravelle. "How Federal Policymakers Account for the Concerns of State and Local Governments in the Formulation of Federal Tax Policy," *National Tax Journal*, v. LX, no. 3, September 2007, pp. 631-648.

Lunder, Erika. *Dormant Commerce Clause and State Treatment of Tax-Exempt Bonds*. Library of Congress, Congressional Research Service Report RS22803.

Maguire, Steven. *Private Activity Bonds: An Introduction*. Library of Congress, Congressional Research Service Report RL31457, Spt. 10, 2010.

— . Tax-Exempt Bonds: A Description of State and Local Government Debt. Library of Congress, Congressional Research Service Report RL30638, June 19, 2012.

Ott, David J., and Allan H. Meltzer. Federal Tax Treatment of State and Local Securities. Washington, DC: The Brookings Institution, 1963.

Poterba, James M. and Arturo Ramirez Verdugo. "Portfolio Substitution and the Revenue Cost of Exempting State and Local Government Interest Payments from Federal Income Tax," *National Bureau of Economic Research*, Working Paper 14439, October 2008.

Poterba, James M. and Andrew A. Samwick. "Taxation and Household Portfolio Composition: US Evidence from the 1980s and 1990s, *Journal of Public Economics*, v. 87, January 2003, pp. 5-38.

Temple, Judy. "Limitations on State and Local Government Borrowing for Private Purposes." *National Tax Journal*, v. 46, March 1993, pp. 41-53.

- U.S. Congress, Congressional Budget Office. Statement of Donald B. Marron before the Subcommittee on Select Revenue Measures Committee on Ways and Means U.S. House of Representatives. "Economic Issues in the Use of Tax-Preferred Bond Financing," March 16, 2006.
- U.S. Congress, Joint Committee on Taxation, *Present Law and Background Related to State and Local Government Bonds*, Joint Committee Print JCX-14-06, March 16, 2006.
- U.S. Department of Treasury, Internal Revenue Service. *Tax-Exempt Private Activity Bonds*, Publication 4078, June 2004.
- U.S. Government Accountability Office, *Information on Selected Capital Facilities Related to the Essential Governmental Function Test*, GAO-06-1082, September 2006.

Whitaker, Stephen, "Prioritization in Private-Activity-Bond Volume Cap Allocation," Federal Reserve Bank of Cleveland, working paper no. 11-10, April 2011.

Zimmerman, Dennis. *The Private Use of Tax-Exempt Bonds: Controlling Public Subsidy of Private Activity*. Washington, DC: The Urban Institute Press, 1991.

— . "Tax-Exempt Bonds," in *The Encyclopedia of Taxation and Tax Policy*, edited by Joseph J. Cordes, Robert D. Ebel, and Jane G. Gravelle. Washington, DC: The Urban Institute Press. 2005.

General Purpose Fiscal Assistance

DEDUCTION OF NONBUSINESS STATE AND LOCAL GOVERNMENT INCOME, SALES, AND PERSONAL PROPERTY TAXES

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	42.4	-	42.4
2012	31.4	-	31.4
2013	46.0	-	46.0
2014	54.0	-	54.0
2015	56.5	-	56.5

Authorization

Section 164.

Description

State and local income, sales, and personal property taxes paid by individuals are deductible from adjusted gross income. For the 2004 through 2011 tax years taxpayers chose between deducting sales or income taxes; absent further action the sales tax deduction option will expire. The sales tax deduction option may be extended at least through 2012. There was also a temporary additional standard deduction for state and local sales and excise taxes paid on up to \$49,500 of the purchase price of a qualified new car, light truck, motor home or motorcycle. The deduction was available for purchases made between February 16, 2009 and January 1, 2010.

Business income, sales, and property taxes are deductible as business expenses, but their deduction is not a tax expenditure because deduction is part of the process for measuring business economic income.

Impact

The deduction of state and local individual income, sales, and personal property taxes increases an individual's after-federal-tax income and reduces the individual's after-federal-tax price of the state and local public services provided with these tax dollars. Some of the benefit goes to the state and local governments (because individuals are willing to pay higher taxes) and some goes to the individual taxpayer.

There may be an impact on the structure of state and local tax systems. Economists have theorized that if a particular state and local tax or revenue source is favored by deductibility in the federal tax code, then state and local governments may rely more upon that tax source. In effect, local governments and taxpayers recognize that residents are only paying part of the tax, and that the federal government, through federal deductibility, is paying the remainder.

The distribution of tax expenditures from state and local income, sales, and personal property tax deductions is concentrated in the higher income classes. Roughly 86% of the tax benefits were taken by families with adjusted gross income in excess of \$100,000 in 2010. As with any deduction, it is worth more as marginal tax rates increase. Personal property tax deductions (typically for cars and boats) are but a small fraction of the state and local taxes paid deduction.

Distribution by Income Class of Tax Expenditure for State and Local Income and Personal Property Tax Deductions, 2010

Income Class (in thousands of \$)	Percentage Distribution
Below \$10	0.0
\$10 to \$20	0.0
\$20 to \$30	0.1
\$30 to \$40	0.4
\$40 to \$50	0.9
\$50 to \$75	5.2
\$75 to \$100	7.9
\$100 to \$200	36.3
\$200 and over	49.3

Rationale

Deductibility of state and local taxes was adopted in 1913 to avoid taxing income that was obligated to expenditures over which the taxpayer had little or no discretionary control. User charges (such as for sewer and water services) and special assessments (such as for sidewalk repairs), however, were not deductible. The Revenue Act of 1964 eliminated deductibility for motor vehicle operators' licenses, and the Revenue Act of 1978 eliminated deductibility of the excise tax on gasoline. These decisions represent congressional concern that differences among states in the legal specification of taxes allowed differential deductibility treatment for taxes that were essentially the same in terms of their economic incidence.

The Tax Reform Act of 1986 eliminated deductibility of sales taxes, partly due to concern that these taxes were estimated and therefore did not perfectly represent reductions of taxable income, and partly due to concerns that some portion of the tax reflects discretionary decisions of state and local taxpavers to consume services through the public sector that might be consumed through private (nondeductible) purchase. The Omnibus Budget Reconciliation Act (OBRA) of 1990 curtailed the tax benefit from State and local income and real property tax deductions for higher income taxpayers. OBRA 1990 requires that itemized deductions be reduced by a percentage (3%) of the amount by which adjusted gross income exceeds a threshold amount. For example, if AGI exceeds the floor by \$10,000, itemized deductions would be reduced by \$3,000 (3% multiplied by \$10,000). Itemized deductions, however, cannot be reduced by more than 80%. The 3% phaseout was gradually reduced beginning in the 2006 tax year and be completely eliminated beginning with the 2010 tax year. The expiration of the 3% phaseout was extended through 2012 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010, P.L. 111-312. For 2012, the AGI floor, if it were applicable for the phaseout, would have been \$173,650 (\$86,825 if married filing separately).

In 2004, sales tax deductibility option was reinstated for the 2004 and 2005 tax years by the American Jobs Creation Act of 2004 (P.L. 108-357). In contrast to pre-1986 law, state sales and use taxes can only be deducted *in lieu of* state income taxes, not in addition to. Taxpayers who itemize and live in states without a personal income tax will benefit the most from this provision. The rationale behind the *in lieu of* is the more equal treatment for taxpayers in states that do not levy an income tax. In December 2006, P.L. 109-432 extended the deduction through 2007. In October 2008, P.L. 110-

343 extended the sales tax deduction option for an additional two years, through 2009. The sales tax deduction was extended through 2011 by the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010 (P.L. 111-312). The sales deduction option is likely to be extended at least through 2012.

Assessment

Modern theories of the public sector discount the "don't tax a tax" justification for state and local tax deductibility, emphasizing instead that taxes represent citizens' decisions to consume goods and services collectively. From this perspective, State and local taxes are benefit taxes and should be treated the same as expenditures for private consumption. As such, these taxes should not be deductible against federal taxable income.

Deductibility can also be seen as an integral part of the federal system of intergovernmental assistance and policy. Modern theories of the public sector also suggest that:

- (1) deductibility does provide indirect financial assistance for the state and local sector and should result in increased State and local budgets, and
- (2) deductibility will influence the choice of state and local tax instruments if deductibility is not provided uniformly.

In theory, there is an incentive for sub-federal governments to rely upon the taxes that are deductible from federal income, such as personal property taxes, because the tax "price" to the taxpayer is lower than the "price" on taxes that are not deductible.

Selected Bibliography

Burman, Leonard E., Christopher Geisler, and Eric Toder. "How Big are Individual Income Tax Expenditures, and Who Benefits from Them?," *American Economic Review*, vol. 93, no. 2, May 2008, pp. 79-83.

Feldstein, Martin, and Gilbert Metcalf. "The Effect of Federal Tax Deductibility on State and Local Taxes and Spending." *Journal of Political Economy*. vol. 95, iss. 4, 1987, pp. 710-736.

Fox, William F., and John A. Swain. "The Federal Role in State Taxation: A Normative Approach," *National Tax Journal*, vol. 60, September 2007, pp. 611-630.

Gade, Mary and Lee C. Adkins. "Tax Exporting and State Revenue Structures," *National Tax Journal*. vol. 43, March 1990, pp. 39-52.

Holtz-Eakin, D. and H. Rosen. "Tax Deductibility and Municipal Budget Structure," *National Bureau of Economic Research*, Working Paper No. 2224, 1987.

— . "Federal Deductibility and Local Property Tax Rates," *Journal of Urban Economics*, v. 27, 1990, pp. 269-284.

Kenyon, Daphne. "Federal Income Tax Deductibility of State and Local Taxes: What Are Its Effects? Should It Be Modified or Eliminated?" *Strengthening the Federal Revenue System*. Advisory Commission on Intergovernmental Relations Report A-97. 1984, pp. 37-66.

Lindsey, Lawrence B. "Federal Deductibility of State and Local Taxes: A Test of Public Choice by Representative Government," in *Fiscal Federalism: Quantitative Studies*, edited by Harvey Rosen, (Chicago: University of Chicago Press), 1998, pp. 137-176.

Maguire, Steven . "Federal Deductibility of State and Local Taxes," Library of Congress, Congressional Research Service Report RL32781.

Metcalf, Gilbert E. "Assessing the Federal Deduction for State and Local Tax Payments," *National Tax Journal*, vol. 64, June 2011, pp. 565-590.

Noto, Nonna A., and Dennis Zimmerman. "Limiting State-Local Tax Deductibility: Effects Among the States," *National Tax Journal*. vol. 37, December 1984, pp. 539-549.

— . Limiting State-Local Tax Deductibility in Exchange for Increased General Revenue Sharing: An Analysis of the Economic Effects. U.S. Congress, Subcommittee on Intergovernmental Relations, Committee on Governmental Affairs, 98th Congress, 1st session, Committee Print S. Prt 98-77. August 1983.

Piccinini, Kristy. "The Deductibility of State and Local Taxes," Congressional Budget Office, February 2008.

Interest

DEFERRAL OF INTEREST ON SAVINGS BONDS

Estimated Revenue Loss

[In billions of dollars]

Fiscal year	Individuals	Corporations	Total
2011	1.4	-	1.4
2012	1.4	~	1.4
2013	1.5	-	1.5
2014	1.5	-	1.5
2015	1.5	-	1.5

Authorization

Section 454(c) of the Internal Revenue Code of 1992.

Description

Owners of U.S. Treasury Series E, Series EE, and Series I savings bonds have the option of either including interest in taxable income as it accrues or excluding interest from taxable income until the bond is redeemed. Furthermore, before September 1, 2004, EE bonds could be exchanged for current income HH bonds with the accrued interest deferred until the HH bonds were redeemed. As of September 1, 2004, the U.S. Treasury ended the sale and exchange of HH savings bonds. On September 1, 1998, the Treasury began issuing Series I bonds, which guarantee the owner a real rate of return by indexing the yield for changes in the rate of inflation. All E bonds no longer earn interest after June 2010, because they have matured. Series EE bonds issued before May 1997 earn various rates for semiannual earnings periods, depending on dates of issue. Series EE bonds issued from May 1997 through April 2005 continue to earn marketbased interest rates set at 90% of the average 5-year Treasury yields for the preceding six months. Series EE bonds issued from May 2005 earn a fixed rate, depending on the rate set when the bond was issued. The revenue loss

shown above is the tax that would be due on the deferred interest if it were reported and taxed as it accrued.

Impact

The deferral of tax on interest income on savings bonds provides two advantages. First, payment of tax on the interest is deferred, delivering the equivalent of an interest-free loan of the amount of the tax. Second, the taxpayer often is in a lower income tax bracket when the bonds are redeemed. This is particularly common when the bonds are purchased while the owner is working and redeemed after the owner retires.

Savings bonds appeal to small savers because of such financial features as their small denominations and safety. There are currently annual cash purchase limits of \$5.000 per person in terms of issue price for both EE bonds and I bonds with these limits applying separately to each series (for a total of \$10,000 per year). Because poor families save little and do not pay federal income taxes, the tax deferral of interest on savings bonds primarily benefits middle income taxpayers.

Rationale

Prior to 1951, a cash-basis taxpayer generally reported interest on U.S. Treasury original issue discount bonds in the year of redemption or maturity, whichever came first. In 1951, when provision was made to extend Series E bonds past their dates of original maturity, a provision was enacted to allow the taxpayer either to report the interest currently, or at the date of redemption, or upon final maturity. The committee reports indicated that the provision was adopted to facilitate the extension of maturity dates.

On January 1, 1960, the Treasury permitted owners of E bonds to exchange these bonds for current income H bonds with the continued deferment of federal income taxes on accrued interest until the H bonds were redeemed. The purpose was to encourage the holding of U.S. bonds. This tax provision was carried over to EE bonds, HH bonds, and I bonds. On February 18, 2004, the U.S. Treasury announced that HH savings bonds would no longer be offered to the public after August 31, 2004. The Treasury's press release stated that "The Treasury is withdrawing the offering due to the high cost of exchanges in relation to the relatively small volume of transactions."

Assessment

The savings bond program was established to provide small savers with a convenient and safe debt instrument and to lower the cost of borrowing to the taxpayer. The option to defer taxes on interest increases sales of bonds. But there is no empirical study that has determined whether or not the cost savings from increased bond sales more than offset the loss in tax revenue from the accrual.

Selected Bibliography

- U.S. Department of the Treasury. A History of the United States Savings Bond Program. Washington, DC: September 1984.
 - . Treasury Direct. Series EE/E Savings Bonds Tax Considerations.
 - . Treasury Direct. Series I Savings Bonds Tax Considerations.

Appendix A Forms of Tax Expenditures

EXCLUSIONS, EXEMPTIONS, DEDUCTIONS, CREDITS, PREFERENTIAL RATES, AND DEFERRALS

Tax expenditures may take any of the following forms:

- (1) special exclusions, exemptions, and deductions, which reduce taxable income and, thus, result in a lesser amount of tax;
- (2) preferential tax rates, which reduce taxes by applying lower rates to part or all of a taxpayer's income;
- (3) special credits, which are subtracted from taxes as ordinarily computed; and
- (4) deferrals of tax, which result from delayed recognition of income or from allowing in the current year deductions that are properly attributable to a future year.

Computing Tax Liabilities

A brief explanation of how tax liability is computed will help illustrate the relationship between the form of a tax expenditure and the amount of tax relief it provides.

CORPORATE INCOME TAX

Corporations compute taxable income by determining gross income (net of any exclusions) and subtracting any deductions (essentially costs of doing business).

The corporate income tax eventually reaches an average rate of 35 percent in two steps. Below \$10,000.000 taxable income is taxed at graduated rates: 15 percent on the first \$50,000, 25 percent on the next \$25,000, and 34 percent on the next \$25,000. The limited graduation provided in this structure was intended to furnish tax relief to smaller corporations. The value of these graduated rates is phased out, via a 5 percent

income additional tax, as income rises above \$100,000. Thus the marginal tax rate, the rate on the last dollar, is 34 percent on income from \$75,000 to \$100,000, 39 percent on taxable income from \$100,000 to \$335,000, and returns to 34 percent on income from \$335,000 to \$10,000,000. The rate on taxable income in excess of \$10,000,000 is 35 percent, and there is a second phase-out, of the benefit of the 34-percent bracket, when taxable income reaches \$15,000,000. An extra tax of three percent of the excess above \$15,000,000 is imposed (for a total of 38 percent) until the benefit is recovered, which occurs at \$18,333,333 taxable income. Above that, income is taxed at a flat 35 percent rate. Most corporate income is taxed at the 35 percent marginal rate.

Any credits are deducted directly from tax liability. The essentially flat statutory rate of the corporation income tax means there is very little difference in marginal tax rates to cause variation in the amount of tax relief provided by a given tax expenditure to different corporate taxpayers. However, corporations without current tax liability will benefit from tax expenditures only if they can carry back or carry forward a net operating loss or credit.

INDIVIDUAL INCOME TAX

Individual taxpayers compute gross income which is the total of all income items except exclusions. They then subtract certain deductions (deductions from gross income or "business" deductions) to arrive at adjusted gross income. The taxpayer then has the option of "itemizing" personal deductions or taking the standard deduction. The taxpayer then deducts personal exemptions to arrive at taxable income. A graduated tax rate structure is applied to this taxable income to yield tax liability, and any credits are subtracted to arrive at the net after-credit tax liability.

The graduated tax structure is currently applied at rates of 10, 15, 25, 28, 33, and 35 percent, with brackets varying across types of tax returns. These rates enacted in the 2001 and 2003 tax bills are technically temporary (expiring in 2013). At that time the 10% rate will return to the 15% rate and the four top rates will return to 28, 31, 36, and 39.6 percent, with brackets varying across types of tax returns. For joint returns, in 2010, rates on taxable income are 10 percent on the first \$16,750, 15 percent for amounts from \$16,750 to \$68,000, 25 percent for amounts from \$68,000 to \$137,300, 28 percent for incomes from \$137,300 to \$209,250, 33 percent for taxable incomes of \$209,250 to \$373,650, and 35 percent for amounts over \$373,650. These amounts are indexed for inflation. There are also phase-outs

of personal exemptions and excess itemized deductions so that marginal tax rates can be higher at very high income levels. These phase are scheduled to be eliminated in 2010, but will be reinstated absent legislative change in 2013.

Exclusions, Deductions, and Exemptions

The amount of tax relief per dollar of each exclusion, exemption, and deduction increases with the taxpayer's marginal tax rate. Thus, the exclusion of interest from state and local bonds saves \$35 in tax for every \$100 of interest for the taxpayer in the 35-percent bracket, whereas for the taxpayer in the 15-percent bracket the saving is only \$15. Similarly, the increased standard deduction for persons over age 65 or an itemized deduction for charitable contributions are worth almost twice as much in tax saving to a taxpayer in the 28-percent bracket as to one in the 15-percent bracket.

In general, the following deductions are itemized, i.e., allowed only if the standard deduction is not taken: medical expenses, specified state and local taxes, interest on nonbusiness debt such as home mortgage payments, casualty losses, certain unreimbursed business expenses of employees, charitable contributions, expenses of investment income, union dues, costs of tax return preparation, uniform costs and political contributions. (Certain of these deductions are subject to floors or ceilings.)

Whether or not a taxpayer minimizes his tax by itemizing deductions depends on whether the sum of those deductions exceeds the limits on the standard deduction. Higher income individuals are more likely to itemize because they are more likely to have larger amounts of itemized deductions which exceed the standard deduction allowance. Homeowners often itemize because deductibility of mortgage interest and property taxes leads to larger deductions than the standard deduction.

Preferential Rates

The amount of tax reduction that results from a preferential tax rate (such as the reduced rates on the first \$75,000 of corporate income) depends on the difference between the preferential rate and the taxpayer's ordinary marginal tax rate. The higher the marginal rate that would otherwise apply, the greater is the tax relief from the preferential rate.

Credits

A tax credit (such as the dependent care credit) is subtracted directly from the tax liability that would accrue otherwise; thus, the amount of tax reduction is the amount of the credit and is not contingent upon the marginal tax rate. A credit can (with one exception) only be used to reduce tax liabilities to the extent a taxpayer has sufficient tax liability to absorb the credit. Most tax credits can be carried backward and/or forward for fixed periods, so that a credit which cannot be used in the year in which it first applies can be used to offset tax liabilities in other prescribed years.

The earned income credit and child credit are the only major tax credits which are now refundable. That is, a qualifying individual will obtain in cash the entire amount of the refundable credit even if it exceeds tax liability. Child credits are not fully refundable, however, for certain very low income families.

Deferrals

Deferral can result either from postponing the time when income is recognized for tax purposes or from accelerating the deduction of expenses. In the year in which a taxpayer does either of these, his taxable income is lower than it otherwise would be, and because of the current reduction in his tax base, his current tax liability is reduced. The reduction in his tax base may be included in taxable income at some later date. However, the taxpayer's marginal tax rate in the later year may differ from the current year rate because either the tax structure or the applicable tax rate has changed.

Furthermore, in some cases the current reduction in the taxpayer's tax base may never be included in his taxable income. Thus, deferral works to reduce current taxes, but there is no assurance that all or even any of the deferred tax will be repaid. On the other hand, the tax repayment may even exceed the amount deferred.

A deferral of taxes has the effect of an interest-free loan for the taxpayer. Apart from any difference between the amount of "principal" repaid and the amount borrowed (that is, the tax deferred), the value of the interest-free loan--per dollar of tax deferral--depends on the interest rate at which the taxpayer would borrow and on the length of the period of deferral. If the deferred taxes are never paid, the deferral becomes an exemption. This can occur if, in succeeding years, additional temporary reductions in taxable income are allowed. Thus, in effect, the interest-free loan is refinanced; the

amount of refinancing depends on the rate at which the taxpayer's income and deductible expenses grow and can continue in perpetuity.

The tax expenditures for deferrals are estimates of the difference between tax receipts under the current law and tax receipts if the provisions for deferral had never been in effect. Thus, the estimated revenue loss is greater than what would be obtained in the first year of transition from one tax law to another. The amounts are long run estimates at the level of economic activity for the year in question.

Appendix B Relationship Between Tax Expenditures and Limited Tax Benefits Subject to Line Item Veto

Description

The Line Item Veto Act (P.L. 104-130) enacted in 1996 gave the President the authority to cancel "limited tax benefits." A limited tax benefit was defined as either a provision that loses revenue and that provides a credit, deduction, exclusion or preference to 100 or fewer beneficiaries, or a provision that provides temporary or permanent transition relief to 10 or fewer beneficiaries in any fiscal year. The act was found unconstitutional in 1998, but there have been subsequent proposals to provide veto authority for certain limited benefits.

Items falling under the revenue losing category did not qualify if the provision treated in the same manner all persons in the same industry, engaged in the same activity, owning the same type of property, or issuing the same type of investment instrument.

A transition provision did not qualify if it simply retained current law for binding contracts or was a technical correction to a previous law (that had no revenue effect).

When the beneficiary was a corporation, partnership, association, trust or estate, the stockholders, partners, association members or beneficiaries of the trust or estate were not counted as beneficiaries. The beneficiary was the taxpayer who is the legal, or statutory, recipient of the benefit.

The Joint Committee on Taxation was responsible for identifying limited tax benefits subject to the line item veto (or indicating that no such benefits exist in a piece of legislation); if no judgment was made, the President could identify such a provision.

The line item veto took effect on January 1, 1997.

Similarities to Tax Expenditures

Limited tax benefits resemble tax expenditures in some ways, in that they refer to a credit, deduction, exclusion or preference that confers some benefit. Indeed, during the debate about the inclusion of tax provisions in the line item veto legislation, the term "tax expenditures" was frequently invoked. The House initially proposed limiting these provisions to a fixed number of beneficiaries (originally 5, and eventually 100). The Senate bill did not at first include tax provisions, but then included provisions that provided more favorable treatment to a taxpayer or a targeted group of taxpayers.

Such provisions would most likely be considered as tax expenditures, at least conceptually, although they might not be included in the official lists of tax expenditures because of de minimis rules (that is, some provisions that are very small are not included in the tax expenditure budget although they would qualify on conceptual grounds), or they might not be separately identified. This is particularly true in the case of transition rules.

Differences from Tax Expenditures

Most current tax expenditures would probably not qualify as limited tax benefits even if they were newly introduced (the line item veto applied only to newly enacted provisions).

First, many if not most tax expenditures apply to a large number of taxpayers. Provisions benefitting individuals, in particular, would in many cases affect millions of individual taxpayers. Most of these tax expenditures that are large revenue losers are widely used and widely available (e.g. itemized deductions, fringe benefits, exclusions of income transfers).

Provisions that only affect corporations may be more likely to fall under a beneficiary limit; even among these, however, the provisions are generally available for all firms engaged in the same activity.

These observations are consistent with a draft analysis of the Joint Committee on Taxation during consideration of the legislation which included examples of provisions already in the law that might have been classified as limited tax benefits had the line item veto provisions been in effect. Some of these provisions had at some time been included in the tax expenditure budget, although they were not currently included: the orphan drug tax credit, which is very small, and an international provision involving the allocation of interest, which has since been repealed. (The orphan drug tax credit is currently included in the tax expenditure budget.) Some provisions modifying current tax expenditures might also have been included. But, in general, tax expenditures, even those that would generally

be seen as narrow provisions focusing on a certain limited activity, would probably not have been deemed limited tax benefits for purposes of the line item veto.

Bibliographic Reference

U.S. Congress. Joint Committee on Taxation. *Draft Analysis of Issues and Procedures for Implementation of Provisions Contained in the Line Item Veto Act* (Public Law 104-130) Relating to Limited Tax Benefits, (JCX-48-96), November 12. 1996.

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